

```

chain nodes :
6
ring nodes :
1 2 3 5
chain bonds :
2-6
ring bonds :
1-2 1-5 2-3 3-5
exact/norm bonds :
1-2 1-5 2-3 2-6 3-5

```

G1:O,S,N,P

G2:Ir,Rh,Ru

```

Match level :
1:Atom 2:Atom 3:Atom 5:Atom 6:CLASS

```

L1 STRUCTURE UPLOADED

=> d his

(FILE 'HOME' ENTERED AT 18:42:44 ON 24 MAR 2008)

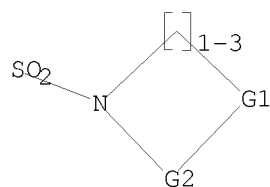
FILE 'REGISTRY' ENTERED AT 18:42:57 ON 24 MAR 2008

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR



G1 O,S,N,P

G2 Ir,Rh,Ru

Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 18:43:18 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 40 TO ITERATE

100.0% PROCESSED 40 ITERATIONS

15 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 421 TO 1179

PROJECTED ANSWERS: 68 TO 532

L2 15 SEA SSS SAM L1

=> s l1 full

FULL SEARCH INITIATED 18:43:23 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 872 TO ITERATE

100.0% PROCESSED 872 ITERATIONS

359 ANSWERS

SEARCH TIME: 00.00.01

L3 359 SEA SSS FUL L1

=> fil caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

178.36

178.57

FILE 'CAPLUS' ENTERED AT 18:43:29 ON 24 MAR 2008

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=> s 13

L4 229 L3

=> s 14 and py<=2002

22929587 PY<=2002

L5 77 L4 AND PY<=2002

=> d 1-77 bib abs

L5 ANSWER 1 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2002:963595 CAPLUS

DN 138:369073

TI Stereocontrolled synthesis of glucosidic damascenone precursors

AU Yamano, Yumiko; Watanabe, Yasuko; Watanabe, Naoharu; Ito, Masayoshi

CS Kobe Pharmaceutical University, Higashinada-ku, Kobe, 658-8558, Japan

SO Journal of the Chemical Society, Perkin Transactions 1 (2002),
(24), 2833-2844

CODEN: JCSPCE; ISSN: 1472-7781

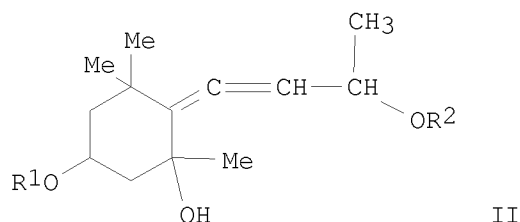
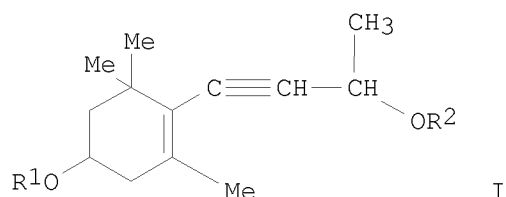
PB Royal Society of Chemistry

DT Journal

LA English

OS CASREACT 138:369073

GI



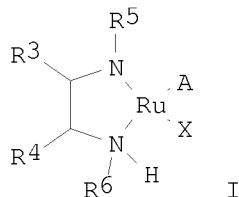
AB A stereocontrolled synthesis of optically active β -D-glucopyranosides I (R1 = H, R2 = β -D-glucopyranosyl; R1 = β -D-glucopyranosyl, R2 = H) and II (R1 = H, R2 = β -D-glucopyranosyl; R1 = β -D-glucopyranosyl, R2 = H), glucosidic damascenone precursors, was accomplished utilizing an asym. transfer hydrogenation to α,β -acetylenic ketones catalyzed by chiral ruthenium complexes as the key step.

RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2002:886005 CAPLUS
 DN 137:369737
 TI Stereoselective hydrogen-transfer process and chiral ruthenium-diamine complex catalyst for producing optically active β -hydroxycarboxylate esters from β -ketocarboxylate esters and hydrogen donors
 IN Tada, Kenichi; Miura, Takashi
 PA Takasago International Corporation, Japan
 SO Eur. Pat. Appl., 9 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 FAN.CNT 12

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1258470	A2	20021120	EP 2002-291172	20020510 <--
	EP 1258470	A3	20030813		
	EP 1258470	B1	20050817		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2003034665	A	20030207	JP 2002-82865	20020325
	JP 4015450	B2	20071128		
	ES 2247280	T3	20060301	ES 2002-291172	20020510
	US 2003004362	A1	20030102	US 2002-142983	20020513
	US 6723871	B2	20040420		
PRAI	JP 2001-150012	A	20010518		
	JP 2002-82865	A	20020325		
OS	CASREACT 137:369737; MARPAT 137:369737				
GI					

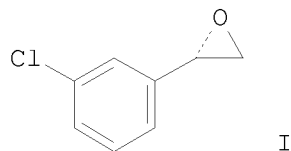


AB Optically active β -hydroxycarboxylate esters $R_1CH(OH)CH_2CO_2R_2$ [R_1 = C1-10 (un)branched perfluoroalkyl or perchloroalkyl; R_2 = C1-8 lower alkyl, (un)substituted benzyl; e.g., optically active Et 4,4,4-trifluoro-3-hydroxybutanoate] are prepared in high yield and selectivity by stereoselective hydrogen transfer to the corresponding β -ketocarboxylate esters $R_1COCH_2CO_2R_2$ (e.g., Et 4,4,4-trifluoro-3-oxobutanoate) in the presence of hydrogen donors (e.g., formic acid-triethylamine mixts.) and a chiral ruthenium-diamine complex catalyst [I; * = asym. carbon atom; R_3 , R_4 = alkyl, Ph, (un)substituted cycloalkyl; R_5 = methanesulfonyl, trifluoromethanesulfonyl, benzenesulfonyl, (un)substituted naphthyl, camphorsulfonyl, alkoxycarbonyl, (un)substituted benzoyl; R_6 = H, alkyl; A = (un)substituted aromatic compound; X = halogen; e.g., $RuCl[(1R,2R)\text{-p-TsNHCH(C}_6\text{H}_5\text{)CH(C}_6\text{H}_5\text{)NH}_2]$ (p-cymene)].

L5 ANSWER 3 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2002:881458 CAPLUS
 DN 139:350763
 TI Product class 6: organometallic complexes of iridium
 AU O'Connor, J. M.

CS Dept. of Chemistry & Biochemistry, University of California - San Diego,
La Jolla, CA, 92093-0358, USA
SO Science of Synthesis (2002), 1, 617-744
CODEN: SSCYJ9
PB Georg Thieme Verlag
DT Journal; General Review
LA English
AB A review on the preparation and applications of iridium organometallic
complexes.
RE.CNT 373 THERE ARE 373 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2002:844399 CAPLUS
DN 138:73126
TI Practical Synthesis of Optically Active Styrene Oxides via Reductive
Transformation of 2-Chloroacetophenones with Chiral Rhodium Catalysts
AU Hamada, Takayuki; Torii, Takayoshi; Izawa, Kunisuke; Noyori, Ryoji;
Ikariya, Takao
CS AminoScience Laboratories, Ajinomoto Co., Inc., Kawasaki, 210-8681, Japan
SO Organic Letters (2002), 4(24), 4373-4376
CODEN: ORLEF7; ISSN: 1523-7060
PB American Chemical Society
DT Journal
LA English
OS CASREACT 138:73126
GI



AB A practical method for the synthesis of optically active styrene oxides,
e.g., I, has been developed via formation of optically active
2-chloro-1-phenylethanols generated by reductive transformation of
ring-substituted 2-chloroacetophenones. The optically active alcs. with
up to 98% ee are obtainable from the asym. reduction of acetophenones with an
S/C = 1000-5000 with a formic acid triethylamine mixture containing a
well-defined chiral Rh complex, Cp*RhCl[(R,R)-Tsdpen].
RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 5 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2002:559841 CAPLUS
DN 137:248006
TI Use of chiral ruthenium amido-sulfonamide complexes for controlled,
enantioasymmetric polypeptide synthesis
AU Seidel, Scott W.; Deming, Timothy J.
CS Chemistry Department, University of Hawaii, Honolulu, HI, 96822-2275, USA
SO PMSE Preprints (2002), 87, 86-87
CODEN: PPMRA9; ISSN: 1550-6703
PB American Chemical Society
DT Journal; (computer optical disk)
LA English
AB Ruthenium-based amido-sulfonamide initiators provided a means to obtain
control over γ -benzyl glutamate N-carboxyanhydride polymers. in the
presence of phosphine that were difficult to realize in other

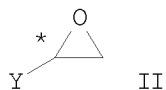
metallacycles based systems.

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 6 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2002:504737 CAPLUS
DN 137:63072
TI Process for producing optically active halohydrin compound by asymmetric
hydrogen transfer reduction of α -halo ketones
IN Torii, Takayoshi; Hamada, Takayuki; Onishi, Tomoyuki; Izawa, Kunisuke;
Ikariya, Takao; Noyori, Ryoji
PA Ajinomoto Co., Inc., Japan
SO PCT Int. Appl., 52 pp.
CODEN: PIXXD2
DT Patent
LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	WO 2002051781	A1	20020704	WO 2001-JP11105	20011218 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2002222690	A1	20020708	AU 2002-222690	20011218 <--
	EP 1346972	A1	20030924	EP 2001-271847	20011218
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	US 2004082820	A1	20040429	US 2003-450831	20030625
	US 6888012	B2	20050503		
PRAI	JP 2000-391776	A	20001225		
	JP 2001-237041	A	20010803		
	JP 2001-314619	A	20011012		
	WO 2001-JP11105	W	20011218		
OS	CASREACT 137:63072; MARPAT 137:63072				
GI					



AB Disclosed is a process for producing an optically active halohydrin compound of formula $YC^*H(OH)CH_2X$ [I; * represent an asym. carbon atom; X = halo; Y = aromatic hydrocarbyl, unsatd. hydrocarbyl, $C_{Ra}R_{bY1}$ (wherein $R_a, R_b = H$, optionally substituted C1-10 alkyl, C6-15 aryl or C7-20 aralkyl optionally containing a heteroatom in the skeleton; $Y1 =$ optionally protected NH_2 or hydroxy)], characterized by subjecting an α -haloketone compound of formula $YCOCH_2X$ (X, Y = same as above) to asym. hydrogen transfer reduction in the presence of a Group 9 transition metal compound having an optionally substituted cyclopentadienyl group and of an optically active diamine compound of formula $(S,S)-$ or $(R,R)-R_2C^*H(NHSO_2R_1)(CH_2)_kC^*H(NH_2)R_3$ [$R_1 =$ alkyl, fluoroalkyl, (un)substituted Ph; $R_2, R_3 =$ (un)substituted Ph or C1-10 alkyl or R_2 and R_3 are combined together to form a ring; * represents an asym. carbon atom; k = an integer of 0-3]. The asym.

hydrogen transfer reduction is preferably conducted in the presence of a base. Treatment of optically active halohydrin compound I with base for cyclization gives optically active epoxides (II; Y = same as above). Thus, a solution of 15.5 mg di- μ -chlorodichlorobis(pentamethylcyclopentadienyl)dirhodium(III) and 36.6 mg (1R,2R)-N-(p-toluenesulfonyl)-1,2-diphenylethylenediamine in 25.0 mL isopropanol was stirred at 80° for 20 min and cooled to room temperature, followed by adding 2.5 mL 0.1 M potassium tert-butoxide (0.25 mmol) and 77.3 mg 2-chloroacetophenone in 22.5 mL isopropanol, and the resulting mixture was stirred at room temperature

for

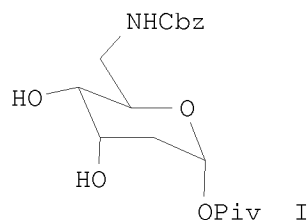
14 h to give 93.6% (S)-(+)-2-chloro-1-phenylethanol (III) (97.5% ee). A solution of 156.6 mg III in 2.0 mL CH₂Cl₂ and 1.0 mL 2.0 M aqueous NaOH were mixed and stirred at room temperature for 4 h to give 95.9% (S)-styrene oxide (97.5% ee).

RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 7 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2002:403138 CAPLUS
DN 137:369562
TI Efficient ruthenium-catalyzed racemization of secondary alcohols:
application to dynamic kinetic resolution
AU Dijksman, Arne; Elzinga, Jeoffrey M.; Li, Yu-Xin; Arends, Isabel W. C. E.;
Sheldon, Roger A.
CS Department of Biotechnology, Biocatalysis and Organic Chemistry, Delft
University of Technology, Delft, 2628 BL, Neth.
SO Tetrahedron: Asymmetry (2002), 13(8), 879-884
CODEN: TASYE3; ISSN: 0957-4166
PB Elsevier Science Ltd.
DT Journal
LA English
OS CASREACT 137:369562
AB Three new ruthenium-based catalytic systems are described which are
capable of catalyzing the racemization of chiral secondary alcs. In
addition, one of these systems, [TosN(CH₂)₂NH₂]RuCl(p-cymene)/TEMPO, was able
to catalyze the in situ racemization during enzymic resolution, i.e. dynamic
kinetic resolution

RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 8 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2002:301244 CAPLUS
DN 137:47382
TI Enantioselective Synthesis of 2-Deoxy- and 2,3-Dideoxyhexoses
AU Haukaas, Michael H.; O'Doherty, George A.
CS Department of Chemistry, University of Minnesota, Minneapolis, MN, 55455,
USA
SO Organic Letters (2002), 4(10), 1771-1774
CODEN: ORLEF7; ISSN: 1523-7060
PB American Chemical Society
DT Journal
LA English
OS CASREACT 137:47382
GI



AB The enantioselective syntheses of C-6 O-TBS- and N-Cbz-protected 2-deoxy- and 2,3-dideoxy sugars, e.g. I, have been achieved in 6-8 steps from furfural. A combination of chemo-, regio-, and diastereoselective oxidation and reduction reactions produced deoxy sugars with various C-6 substitution. A key development of this route was the use of o-nitrobenzenesulfonylhydrazide (NBSH) as a diimide precursor. These overall procedures allow for the synthesis of eight deoxy sugars in either enantiomeric form.

RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 9 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2002:255941 CAPLUS

DN 136:297377

TI High conversion efficiency durable semiconductor for photoelectric converter, the photoelectric converter, and photoelectrochemical cell

IN Okubo, Kimihiko; Kita, Hiroshi

PA Konica Co., Japan

SO Jpn. Kokai Tokkyo Koho, 33 pp.

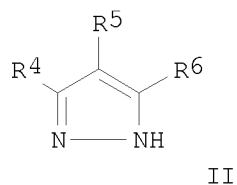
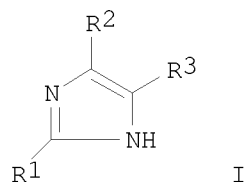
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	JP 2002100420	A	20020405	JP 2000-290467	20000925 <--
PRAI	JP 2000-290467		20000925		
OS	MARPAT 136:297377				
GI					



AB The semiconductor is sensitized with ≥ 1 organic metal complexes having N anion-metal cation ionic coordination bond or N- or chalcogenic atom-metal coordination bond. The anion of the complex is selected from R'N:A3A2:AlNHR [A1-3 = (substituted) methine group (-CRa:) or N; R, R' and Ra = H or substituents and may form rings], R'X8A2:AlNHR (X8 = -NRb- or chalcogen atom, Rb = H or substituent), I (R1-3 = H or substituents, with ≥ 1 of R1-3 containing metal cation coordinating N or chalcogen atom separated by 2-3 atoms from a N atom that forming ion coordination with a metal ion, R2 and R3 may join to form an imidazole ring), II (R4-6 = H or

substituents, with ≥ 1 of R4-6 containing metal cation coordinating N or chalcogen atom separated by 2-3 atoms from a N atom that forming ion coordination with a metal ion, R4 and R5 or R5 and R6 may form an imidazole ring), or condensed ring derivs. of I and II. The photoelectrochem. cell contains a photoelec. converter using the semiconductor.

L5 ANSWER 10 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2002:227355 CAPLUS
 DN 136:385910
 TI Enantioselective Monoreduction of 2-Alkyl-1,3-diketones Mediated by Chiral Ruthenium Catalysts. Dynamic Kinetic Resolution
 AU Eustache, Florence; Dalko, Peter I.; Cossy, Janine
 CS Laboratoire de Chimie Organique, CNRS, ESPCI, Paris, 75231, Fr.
 SO Organic Letters (2002), 4(8), 1263-1265
 CODEN: ORLEF7; ISSN: 1523-7060
 PB American Chemical Society
 DT Journal
 LA English
 OS CASREACT 136:385910
 AB The reduction of 2-alkyl-1,3-diketones using (R,R)- or (S,S)-RuCl[N-(tosyl)-1,2-diphenylethylenediamine](p-cymene) in the presence of formic acid and triethylamine affords syn-2-alkyl-3-hydroxy ketones as the major products with high enantioselectivity.
 RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 11 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2002:107282 CAPLUS
 DN 136:150991
 TI Process for producing optically active alcohol by asymmetric hydrogen-transfer reduction of ketones with chiral transition metal complex having amide compound as ligand
 IN Masui, Moriyasu; Hasegawa, Yasushi
 PA Shionogi & Co., Ltd., Japan
 SO PCT Int. Appl., 88 pp.
 CODEN: PIXXD2
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002010101	A1	20020207	WO 2001-JP6478	20010727 <--
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW:				
	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRAI JP 2000-232725 A 20000801
 OS CASREACT 136:150991; MARPAT 136:150991
 AB A process for producing an optically active alc. represented by the general formula R1a'C*H(OH)R2a' (wherein R1a' and R2a' each represents hydrogen, an organic residue, or a group formed by reducing the organic residue,
 provided that R1a' and R2a' may be bonded to each other to form an optionally substituted cyclic group; C* represents an asym. carbon atom) comprises reducing a carbonyl compound represented by the general formula R1aCOR2a (wherein R1a and R2a each represents hydrogen or an organic residue,

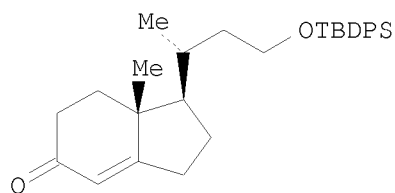
provided that R1a and R2a may be bonded to each other to form an optionally substituted cyclic group) in the presence of a chiral transition metal complex having an α -aminocarboxamide compound as a ligand and of a base and a hydrogen-donating compound. A transition metal complex consisting of an α -aminocarboxamide ligand which is readily prepared from α -amino acid found to serve as an excellent catalyst for hydrogen-transfer type reduction. This process gives optically active alcs. in high yields with high stereoselectivity. Thus, 73 mg tetrachlorobis(η^6 -mesitylene) diruthenium, 3 mL isopropanol, and 0.17 mL Et₃N were added to 67 mg (S)-N-(p-toluenesulfonyl)-2-pyrrolidinecarboxamide and stirred at 80° for 4 h to give 45% chloro(η^6 -mesitylene)[(S)-N-(p-toluenesulfonyl)-2-pyrrolidinecarboxamide]ruthenium (I) as an orange solid. A 5:2 mixture of formic acid and triethylamine (2.5 mL) was added to a mixture of 1.49 g 2-[2-(2,5-dimethylphenoxy)methyl]phenyl]-N-methyl-2-oxoacetamide, 26 mg I, and 2.5 mL DMSO and stirred at room temperature for 2 h and then at 50° for 22 h to give 100% (R)-2-[2-(2,5-dimethylphenoxy)methyl]phenyl]-2-hydroxy-N-methylacetamide (86% ee).

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

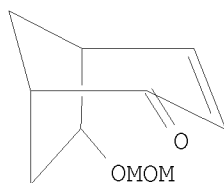
L5 ANSWER 12 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2002:106175 CAPLUS
DN 136:294599
TI Practical Synthesis of Optically Active Amino Alcohols via Asymmetric Transfer Hydrogenation of Functionalized Aromatic Ketones
AU Watanabe, Masahito; Murata, Kunihiro; Ikariya, Takao
CS Central Research Laboratory, Kanto Chemical Corp. Inc., Soka Saitama, Japan
SO Journal of Organic Chemistry (2002), 67(5), 1712-1715
CODEN: JOCEAH; ISSN: 0022-3263
PB American Chemical Society
DT Journal
LA English
OS CASREACT 136:294599
AB 2-Substituted acetophenones such as 2-cyano-, 2-azido-, or 2-nitroacetophenones were effectively reduced with a mixture of HCOOH/N(C₂H₅)₃ containing a chiral Ru(II) catalyst, RuCl[(S,S)-N-(p-toluenesulfonyl)-1,2-diphenylethylenediamine](p-cymene), giving the corresponding optically active alcs., which can be converted to optically active amino alcs. with excellent ee's. Similarly, the reaction of 2-benzoylacetophenone with the same Ru catalyst gave a quant. yield of the corresponding optically active 1,3-diol with 99% ee.

RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 13 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2002:43090 CAPLUS
DN 136:325725
TI Concise synthesis of a steroid C/D-ring system using a bicyclo[3.2.1]octane chiral building block: A new route to 25-hydroxy-Grundmann's ketone
AU Hanada, Keisuke; Miyazawa, Norio; Nagata, Hiroshi; Ogasawara, Kunio
CS Pharmaceutical Institute, Tohoku University, aobayama, Sendai, 980-8578, Japan
SO Synlett (2002), (1), 125-127
CODEN: SYNLES; ISSN: 0936-5214
PB Georg Thieme Verlag
DT Journal
LA English
OS CASREACT 136:325725
GI



I



II

AB A concise route to a steroid C/D-ring system (I) leading to 25-hydroxy-Grundmann's ketone has been developed along with a new chemical resolution of the chiral starting material containing a bicyclo[3.2.1]octane framework (II).

RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 14 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2002:33908 CAPLUS

DN 136:200294

TI Deprotonation of Organic Compounds Bearing Acid Protons Promoted by Metal Amido Complexes with Chiral Diamine Ligands Leading to New Organometallic Compounds

AU Murata, Kunihiro; Konishi, Hirokazu; Ito, Masato; Ikariya, Takao

CS Department of Applied Chemistry Graduate School of Science and Engineering, Tokyo Institute of Technology, and CREST, Japan Science and Technology Cooperation (JST), O-okayama, Meguro-ku, Tokyo, 152-8552, Japan

SO Organometallics (2002), 21(2), 253-255

CODEN: ORGND7; ISSN: 0276-7333

PB American Chemical Society

DT Journal

LA English

OS CASREACT 136:200294

AB Well-defined 16-electron metal amido complexes bearing chiral Ts-diamine [Ts-diamine = N-(p-toluenesulfonyl)-1,2-diamine] ligands readily react with nitromethane, acetone, or phenylacetylene to give new organometallic compds. in almost quant. yields. For example, an Ir amido complex, Cp*Ir[(R,R)-TscydN] 1a, [(R,R)-TscydN = (1R,2R)-N-(p-toluenesulfonyl)-1,2-cyclohexanediamine] reacts with nitromethane at room temperature to give quant. a nitromethyl Ir complex, Cp*Ir(CH₂NO₂)[(R,R)-TscydN] 1b, as a single diastereomer. The structure of 1b and 2 other related iridium diamido complexes were determined by x-ray crystallog. (for 1b.MeNO₂, space group P2₁2₁2₁, Z = 4, R_w = 0.059). The isolable organometallic compds. with chiral amine ligands are relevant to active catalysts for asym. C-C bond formation.

RE.CNT 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 15 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2001:928095 CAPLUS

DN 136:310132

TI Highly enantioselective synthesis via dynamic kinetic resolution under transfer hydrogenation using Ru(η⁶-arene)-N-perfluorosulfonyl-1,2-diamine catalysts: a first insight into the relationship of the ligand's pK_a and the catalyst activity

AU Mohar, Barbara; Valleix, Alain; Desmurs, Jean-Roger; Felemez, Marc; Wagner, Alain; Mioskowski, Charles

CS National Institute of Chemistry, Ljubljana, SI-1001, Slovenia

SO Chemical Communications (Cambridge, United Kingdom) (2001), (24), 2572-2573

CODEN: CHCOFS; ISSN: 1359-7345

PB Royal Society of Chemistry

DT Journal

LA English

OS CASREACT 136:310132

AB β -(3,4-Dimethoxyphenyl)serine Me ester was obtained in high diastereomeric and enantiomeric excesses under transfer hydrogenation using chiral Ru(η^6 -arene)-N-perfluorosulfonyl-1,2-diamine catalysts.

RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 16 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2001:917584 CAPLUS

DN 136:247678

TI Studies on the mechanism of metal-catalyzed hydrogen transfer from alcohols to ketones

AU Pamies, Oscar; Backvall, Jan-E.

CS Department of Organic Chemistry, Arrhenius Laboratory, Stockholm University, 10691, Swed.

SO Chemistry--A European Journal (2001), 7(23), 5052-5058
CODEN: CEUJED; ISSN: 0947-6539

PB Wiley-VCH Verlag GmbH

DT Journal

LA English

OS CASREACT 136:247678

AB The mechanism of metal-catalyzed H transfer from alcs. to ketones was studied. H transfer (H-transfer) from (S)- α -deutero- α -phenylethanol ((S)-1) to acetophenone was used as a probe to distinguish between selective C-to-C H-transfer and nonselective transfer involving both O-to-C and C-to-C H-transfer. The progress of the reaction was monitored by the decreasing enantiomeric excess of (S)-1. After complete racemization, the alc. was analyzed for its D content in the α -position, which is a measure of the degree of selectivity in the H-transfer. A number of different Rh, Ir, and Ru complexes, e.g., [(dppp)RhCl]₂, (in total 21 complexes) were studied by using this probe. For all Rh complexes a high degree of retention of D at α -C (95-98%) was observed. Also most Ir complexes showed a high degree of retention of D. However, the results for the Ru complexes show that there are two types of catalysts: one that gives a high degree of D retention at α -C and another that gives about half of the D content at α -C (37-40%). Two different mechanisms are proposed for transition-metal-catalyzed H transfer, one via a monohydride (giving a high D content) and another via a dihydride (giving about half of D content). As comparison nontransition-metal-catalyzed H transfer was studied with the same probe. Al- and Sm-catalyzed racemization of (S)-1 gave 75-80% retention of D in the α -position of the alc., and involvement of an electron transfer pathway was suggested to account for the loss of D.

RE.CNT 75 THERE ARE 75 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 17 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2001:899932 CAPLUS

DN 136:166931

TI Optically Pure α -(Trimethylsilyl)benzyl Alcohol: A Practical Chiral Auxiliary for Oxocarbenium Ion Reactions

AU Cossrow, Jennifer; Rychnovsky, Scott D.

CS Department of Chemistry, University of California, Irvine, CA, 92697-2025, USA

SO Organic Letters (2002), 4(1), 147-150
CODEN: ORLEF7; ISSN: 1523-7060

PB American Chemical Society

DT Journal

LA English
OS CASREACT 136:166931
AB Enantiopure (S)- α -(trimethylsilyl)benzyl alc. (98% ee) was prepared by Noyori's transfer hydrogenation of benzoyltrimethylsilane. The corresponding trimethylsilyl ether was subjected to Marko's silyl modified Sakurai conditions with a variety of aldehydes to afford homoallylic ethers in high diastereoselectivity. The practicality of the α -trimethylsilyl benzyl group as an oxocarbenium ion auxiliary was further demonstrated by its efficient deprotection or conversion to a benzyl protecting group.

RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 18 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2001:804110 CAPLUS
DN 136:102096
TI Metal-Ligand Bifunctional Catalysis: A Nonclassical Mechanism for Asymmetric Hydrogen Transfer between Alcohols and Carbonyl Compounds
AU Noyori, Ryoji; Yamakawa, Masashi; Hashiguchi, Shohei
CS Department of Chemistry and Research Center for Materials Science, Nagoya University, Chikusa, Nagoya, 464-8602, Japan
SO Journal of Organic Chemistry (2001), 66(24), 7931-7944
CODEN: JOCEAH; ISSN: 0022-3263
PB American Chemical Society
DT Journal
LA English
OS CASREACT 136:102096
AB Is substrate/metal complexation essential for hydrogenative saturation of unsatd. compds. No, it is not always necessary. The metal-ligand bifunctional mechanism allows for direct reduction of carbonyl compds. with an 18-electron transition metal hydride without C=O/metal interaction. Asym. transfer hydrogenation of aromatic carbonyl compounds using a 2-propanol/alkaline base system in the presence of $\text{RuCl}[(\text{S,S})\text{-YCH}(\text{C}_6\text{H}_5)\text{CH}(\text{C}_6\text{H}_5)\text{NH}_2](\eta^6\text{-arene})$ ($\text{Y} = \text{O}$, NTs) or its analogs gives the corresponding S chiral alcs. of high enantiomeric purity. The reaction proceeds via a coordinatively saturated 18- electron complex, $\text{RuH}[(\text{S,S})\text{-YCH}(\text{C}_6\text{H}_5)\text{CH}(\text{C}_6\text{H}_5)\text{NH}_2](\eta^6\text{-arene})$. The hydridic RuH and protic NH are simultaneously delivered to a C=O linkage via a six-membered pericyclic mechanism, giving an S alc. and $\text{RuH}[(\text{S,S})\text{-YCH}(\text{C}_6\text{H}_5)\text{CH}(\text{C}_6\text{H}_5)\text{NH}_2](\eta^6\text{-arene})$. The latter 16-electron Ru amide complex dehydrogenates 2-propanol to regenerate the Ru hydride species. A formic acid/triethylamine mixt.formic acid/triethylamine mixture serves as a better reducing agent. The recognition of carbonyl enantiofaces in the hydrogen transfer is made largely by the attractive CH/ π interaction between the η^6 -arene ligand and the aromatic substituent in carbonyl substrates.

RE.CNT 158 THERE ARE 158 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 19 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2001:795601 CAPLUS
DN 136:70030
TI Enantioselective Synthesis of N-Cbz-Protected 6-Amino-6-deoxymannose, -talose, and -gulose
AU Haukaas, Michael H.; O'Doherty, George A.
CS Department of Chemistry, University of Minnesota, Minneapolis, MN, 55455, USA
SO Organic Letters (2001), 3(24), 3899-3902
CODEN: ORLEF7; ISSN: 1523-7060
PB American Chemical Society
DT Journal
LA English

OS CASREACT 136:70030

AB The enantioselective synthesis of three 6-amino-6-deoxy sugars has been achieved in six to eight steps from furfural. A sequence of diastereoselective oxidation and reduction reactions produced Cbz-protected 6-aminomannose from furfuryl alc. The incorporation of a Mitsunobu reaction into the reaction sequence allows for the selective synthesis of both N-Cbz-protected 6-aminotalose and 6-aminogulose. The overall procedure allows for the synthesis of either enantiomer of these three amino sugars.

RE.CNT 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 20 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2001:498893 CAPLUS

DN 135:303632

TI Ruthenium-catalyzed asymmetric reduction of 1,3-diketones using transfer hydrogenation

AU Cossy, J.; Eustache, F.; Dalko, P. I.

CS ESPCI, Laboratoire de Chimie Organique Associe au CNRS, Paris, 75231, Fr.

SO Tetrahedron Letters (2001), 42(30), 5005-5007

CODEN: TELEAY; ISSN: 0040-4039

PB Elsevier Science Ltd.

DT Journal

LA English

OS CASREACT 135:303632

AB 1,3-Diketones were reduced to 1,3-diols by using RuCl[N-(tosyl)-1,2-(diphenylethylenediamine)(η 6-arene)] in the presence of formic acid and triethylamine. 1,3-Diols were obtained in good chemical yields and with high ee when sym. diketones were reduced.

RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 21 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2001:420228 CAPLUS

DN 135:241689

TI Catalytic asymmetric Michael reactions using a chiral rhodium complex

AU Suzuki, T.; Torii, T.

CS Graduate School of Pharmaceutical Sciences, The University of Tokyo, Tokyo, Bunkyo-ku, Hongo, 113-0033, Japan

SO Tetrahedron: Asymmetry (2001), 12(7), 1077-1081

CODEN: TASYE3; ISSN: 0957-4166

PB Elsevier Science Ltd.

DT Journal

LA English

OS CASREACT 135:241689

AB Catalytic asym. Michael reaction of β -keto esters and Me vinyl ketone was achieved using a chiral diamine-based Rh complex to give the Michael adducts in up to 75% e.e.

RE.CNT 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 22 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2001:375463 CAPLUS

DN 135:288538

TI Practical synthesis of optically active alcohols by asymmetric hydrogen-transfer reduction

AU Okano, Kazuya

CS Tsukuba Res. Cent., Mitsubishi Chem. Corp., Ibaraki, 300-0813, Japan

SO Yuki Gosei Kagaku Kyokai (2001), 59(5), 450-451

CODEN: YGKKAE; ISSN: 0037-9980

PB Yuki Gosei Kagaku Kyokai

DT Journal; General Review

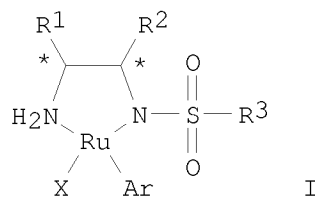
LA Japanese
 AB A review with 6 refs. on asym. reduction of ketones to optical active alcs. using a chiral Ru complex catalyst.

L5 ANSWER 23 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2001:290361 CAPLUS
 DN 135:77006
 TI Stereocontrolled Synthesis of cis-Dibenzoquinolizine Chlorofumarates: Curare-Like Agents of Ultrashort Duration
 AU Kaldor, Istvan; Feldman, Paul L.; Mook, Robert A., Jr.; Ray, John A.; Samano, Vicente; Sefler, Andrea M.; Thompson, James B.; Travis, Benjamin R.; Boros, Eric E.
 CS Division of Medicinal Chemistry, GlaxoSmithKline Research & Development, Research Triangle Park, NC, 27709, USA
 SO Journal of Organic Chemistry (2001), 66(10), 3495-3501
 CODEN: JOCEAH; ISSN: 0022-3263
 PB American Chemical Society
 DT Journal
 LA English
 OS CASREACT 135:77006
 AB Cis-Dibenzoquinoliziniumpropanols were prepared stereoselectively and were transformation into bis- and mixed-onium chlorofumarates. The title compds. displayed curare-like effects of ultrashort duration in rhesus monkeys.

RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 24 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2001:270196 CAPLUS
 DN 134:316678
 TI Ruthenium catalyst composition for asymmetric hydrogen transfer reduction reactions
 IN Okano, Kazuya; Miyagi, Miwa
 PA Mitsubishi Chemical Corp., Japan
 SO Jpn. Kokai Tokkyo Koho, 7 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001104795	A	20010417	JP 1999-290699	19991013 <--
PRAI	JP 1999-290699		19991013		
OS	MARPAT 134:316678				
GI					

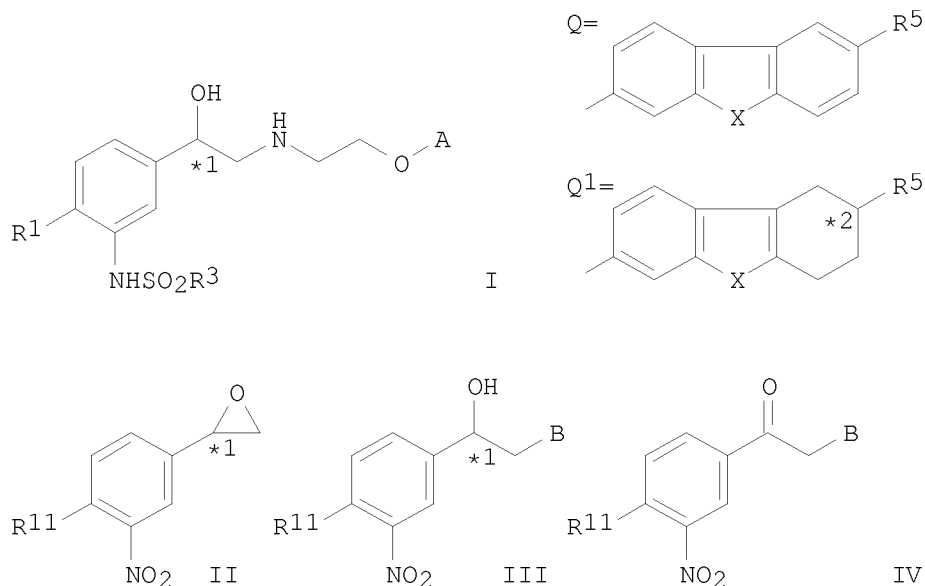


AB The Ru catalyst composition comprises a N,N'-disulfonyl-1,2-diamine $R_3S(=O)_2NHC^*R_1-C^*R_2NHS(=O)_2R_3$ ($R_1, 2 = C_{1-12}$ alkyl, aryl; $R_3 = C_{\leq 20}$ alkyl, aryl; * = asym. carbon atom) 0.1-20% and a Ru complex I ($X = \text{halo}$;

Ar = aryl) 80-99.9%.

L5 ANSWER 25 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2001:185720 CAPLUS
DN 134:222624
TI Processes for the preparation of tricyclic amino alcohol derivatives
IN Matsubara, Koki; Ishii, Naoyuki; Ogawa, Masami
PA Asahi Kasei Kabushiki Kaisha, Japan
SO PCT Int. Appl., 77 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	WO 2001017962	A1	20010315	WO 2000-JP5561	20000818 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2383757	A1	20010315	CA 2000-2383757	20000818 <--
	EP 1209150	A1	20020529	EP 2000-953514	20000818 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
	BR 2000013717	A	20020702	BR 2000-13717	20000818 <--
	MX 2002PA02283	A	20020730	MX 2002-PA2283	20020301 <--
	NO 2002001066	A	20020503	NO 2002-1066	20020304 <--
	US 6696573	B1	20040224	US 2002-70249	20020304
	US 2003225289	A1	20031204	US 2003-458675	20030611
PRAI	JP 1999-250848	A	19990903		
	JP 2000-30826	A	20000208		
	WO 2000-JP5561	W	20000818		
	US 2002-70249	A3	20020304		
OS	CASREACT 134:222624; MARPAT 134:222624				
GI					



AB A process for the preparation of tricyclic amino alc. derivs. (I; R1 = H, halo, OH; R3 = lower alkyl, CH2Ph; *1 represents an asym. carbon atom.; A = Q, Q1; X = NH, O, S; R5 = H, OH, NH2, acetylamino; when R5 is not H, *2 represents an asym. carbon atom.) are prepared through intermediates represented by general formula (II, III, and IV) (wherein R11 = H, halo, protected OH; B = Cl, Br; 1* represents an asym. carbon atom.). The intermediates such as 2-Halo-1-(3-nitrophenyl)ethanone derivs. IV and 1-(3-nitrophenyl)oxirane derivs. II are easy of purification, and particularly optically active II are effective in enhancing the optical purities of the final products. These tricyclic amino alc. derivs. I including 2-[N-[2-(9H-carbazol-2-yloxy)ethyl]amino]-1-[(3-methylsulfonylamino)phenyl]ethanol (V) are useful in the treatment of diabetes, obesity, hyperlipemia and so on (no data). Thus, a solution of 3'-nitroacetophenone in CH2Cl2/MeOH was treated dropwise with a solution of SO2Cl2 in CH2Cl2 over a period of 1 h and stirred at room temperature for 1 h to give 3'-nitro-2-chloroacetophenone which was reduced by HCO2H/Et3N (5:2 complex) in the presence of chloro[(S,S)-N-methanesulfonyl-1,2-diphenylethylenediamine] (p-cymene)ruthenium complex in 2-propanol at room temperature for 22 h to give (R)-1-(3-nitrophenyl)-2-chloroethanol. A solution of the latter compound in 2-propanol was treated dropwise with 2 N aqueous NaOH over a period of 20 min and stirred at room temperature for 30 min to give (2R)-2-(3-nitrophenyl)oxirane which was heated with 2-(2-benzylaminoethoxy)carbazole in 2-butanol at 95° under stirring for 8 h to give (R)-1-(3-nitrophenyl)-2-[N-[2-(carbazol-2-yloxy)ethyl]-benzylamino]ethanol. The latter compound was hydrogenated over platinum oxide in MeOH under normal pressure hydrogen atmospheric at room temperature for 4 h to give (R)-1-(3-aminophenyl)-2-[N-[2-(carbazol-2-yloxy)ethyl]-benzylamino]ethanol. A solution of the latter compound in THF was treated with pyridine, cooled to 0°, treated dropwise with MeSO2Cl over a period of 15 min, and stirred at 0° for 4 h to give (R)-1-(3-(methanesulfonylamino)phenyl)-2-[N-[2-(carbazol-2-yloxy)ethyl]-benzylamino]ethanol which was dissolved in ethanol and hydrogenated over 10% Pd-C under normal pressure hydrogen atmospheric at 70° for 4 h to give (R)-V.

RE.CNT 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 26 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2001:155152 CAPLUS
DN 135:5495
TI Stereoselective synthesis of 3-substituted phthalides via asymmetric
transfer-hydrogenation using well-defined ruthenium catalysts under
neutral conditions
AU Everaere, K.; Scheffler, J.-L.; Mortreux, A.; Carpentier, J.-F.
CS Groupe de Chimie Organique Appliquee, Laboratoire de Catalyse de Lille
Associe au CNRS, Ecole Nationale Supérieure de Chimie de Lille, Villeneuve
d'Ascq, Fr.
SO Tetrahedron Letters (2001), 42(10), 1899-1901
CODEN: TELEAY; ISSN: 0040-4039
PB Elsevier Science Ltd.
DT Journal
LA English
OS CASREACT 135:5495
AB The asym. transfer-hydrogenation of Me 2-acylbenzoates and iso-Pr
3-acetylpyridine-2-carboxylate in 2-propanol, in the absence of base, with
preformed Ru diamido or alkoxy-amido complex catalysts provides
3-alkylphthalides in high yields and 92-97% ee. The procedure is,
however, not as efficient for the preparation of optically active
3-phenylphthalide.

RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 27 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2001:152559 CAPLUS
DN 134:209674
TI Surface-confined catalytic compositions
IN Ying, Jackie Y.; Mehnert, Christian P.; Lettow, John S.; Huang, Dejian
PA Massachusetts Institute of Technology, USA
SO PCT Int. Appl., 52 pp.
CODEN: PIXXD2
DT Patent
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001014060	A2	20010301	WO 2000-US40744	20000825 <--
	WO 2001014060	A3	20010712		
	W: CA, JP				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 6544923	B1	20030408	US 2000-648928	20000825
PRAI	US 1999-150672P	P	19990825		

AB The present invention provides a novel catalytic system comprising
catalysts immobilized on ultra-large mesoporous compns., and particularly
compns. having a large percentage of pores with a mean diameter ≥ 50 Å.
Such compns. include silicates covalently bound to a ligand that in turn
can covalently bind an organometallic fragment. For asym. organometallic
catalysts, the catalyst is bound to the mesoporous composition via an achiral
ligand. The catalytic reactions include hydrogenation, hydroformylation,
carbonylation and carbon-carbon coupling reactions, such as Heck or Suzuki
reactions. The present invention provides catalyst for performing asym.
reactions to achieve products of high stereoselectivities. The present
invention also relates to ionically immobilized catalysts. In addition, the
large pore sizes of these compns. can be used for polymerization reactions
where
the pore sizes can be tuned to achieve a particular mol. weight distribution.

Other uses of the porous compns. include support materials for
combinatorial chemical

L5 ANSWER 28 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2001:50622 CAPLUS
DN 134:115849
TI Process for the preparation of tricyclic amino alcohol derivatives
IN Miyoshi, Shiro; Matsubara, Koki
PA Asahi Kasei Kogyo Kabushiki Kaisha, Japan
SO PCT Int. Appl., 70 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001004092	A1	20010118	WO 2000-JP4015	20000620 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2377760	A1	20010118	CA 2000-2377760	20000620 <--
	EP 1195371	A1	20020410	EP 2000-937319	20000620 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, MC, IE, SI, LT, LV, FI, RO				
	NO 2002000073	A	20020311	NO 2002-73	20020108 <--
PRAI	JP 1999-195519	A	19990709		
	WO 2000-JP4015	W	20000620		
OS	CASREACT 134:115849; MARPAT 134:115849				
GI					

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB A novel process for the preparation of tricyclic amino alc. derivs. of general formula [I; wherein R1 = lower alkyl, benzyl; *1 represents an asym. carbon atom; R2 = H, halo, HO; and A is a substituent represented by general formula Q or Q1 (wherein X = NH, O, S; R6 = H, hydroxyl, amino, acetylamino; and *2 represents an asym. carbon atom when R6 is not hydrogen)] or salts thereof comprises, e.g. chlorination of acetophenone derivs. (II; X = H; R1 = same as above; R21 = H, halo, protected OH; R3 = amino-protecting group) to α -chloroacetophenone derivs. II (X = Cl; R1, R3, R21 = same as above), reduction to chlorohydrins (III; R = Cl; R1, R21, R3, *1 = same as above), alkali treatment of the chlorohydrins for cyclization to epoxides (IV; R1, R21, R3, *1 = same as above), ring-opening addition reaction of the epoxides with ethanolamines represented by formula R4NHCH2CH2OH (R4 = amino-protecting group) to obtain dialc. III (R = NR4CH2CH2OH; R1, R21, R3, R4, *1 = same as above), bromination of the primary alc., and etherification with Al-OH (Al = Q, Q1; wherein R6 = H, protected OH or NH or AcNH; *2 = same as above) to obtain III (R = NR4CH2CH2OAl; Al, R1, R21, R3, R4, *1, *2 = same as above) followed by deprotection. The compds. I are useful in the treatment and prevention of diabetes, obesity, hyperlipemia and so on (no data). Thus, chlorination of 3'-(N-benzyl-N-methylsulfonylamino)acetophenone by SO2Cl2 in CH2Cl2 at room temperature to
2-chloro-1-[3-(N-benzyl-N-methylsulfonylamino)phenyl]ethanon

e followed by stereoselective reduction with formic acid-triethylamine complex in the presence of [(S,S)-N-(p-toluenesulfonyl)-1,2-diphenylethylenediamine](p-cymene)ruthenium complex in THF at room temperature for 4 h gave (R)-2-chloro-1-[3-(N-benzyl-N-methylsulfonylamino)phenyl]ethanol. Cyclization of the latter chlorohydrin with K₂CO₃ in acetone under reflux for 5 h to (R)-1-[3-(N-benzyl-N-methylsulfonylamino)phenyl]oxirane and ring-opening amination of the epoxide with N-benzylethanolamine at 100° for 13 h gave (R)-2-[N'-benzyl-N'-(2-hydroxyethyl)amino]-1-[3-(N-benzyl-N-methylsulfonylamino)phenyl]ethanol followed by bromination with N-bromosuccinimide and Ph₃P in THF at -15° for 15 min and etherification of (R)-2-[N'-benzyl-N'-(2-hydroxyethyl)amino]-1-[3-(N-benzyl-N-methylsulfonylamino)phenyl]ethyl bromide with 2-hydroxycarbazole in a mixture of 2 N NaOH and THF at room temperature for 5 h gave (R)-2-[N'-benzyl-N'-[2-(9H-carbazol-2-yloxy)ethyl]amino]-1-[3-(N-benzyl-N-methylsulfonylamino)phenyl]ethanol. Hydrogenolysis of the latter compound over Pd(OH)₂/C at room temperature overnight followed by treatment with 0.1 N HCl/ethanol gave (R)-2-[[2-(9H-carbazol-2-yloxy)ethyl]amino]-1-[3-(methylsulfonylamino)phenyl]ethanol hydrochloride.

RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 29 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2001:15794 CAPLUS

DN 134:237627

TI Biomimetic catalysis with immobilized organometallic ruthenium complexes: substrate- and regioselective transfer hydrogenation of ketones

AU Polborn, Kurt; Severin, Kay

CS Institut für Anorganische Chemie der Universität, München, 81377, Germany

SO Chemistry--A European Journal (2000), 6(24), 4604-4611

CODEN: CEUJED; ISSN: 0947-6539

PB Wiley-VCH Verlag GmbH

DT Journal

LA English

OS CASREACT 134:237627

AB Chloro-(η⁶-arene) complexes of Ru(II) with N-sulfonyl-1,2-ethylenediamine ligands that have one or two styrene side chains were synthesized and characterized. The chloro ligand was substituted with a diphenylphosphinato ligand and the resulting organometallic complexes are transition state analogs for the Ru-catalyzed transfer hydrogenation of benzophenone. Following the protocol of mol. imprinting, these complexes were copolymerized with ethylene glycol dimethacrylate (EGDMA) in the presence of a porogen. The polymers were ground and sieved, and the phosphinato ligand was substituted with a chloro ligand, thus generating a shape-selective cavity in close proximity to the catalytically active metal center. When tested for their ability to catalyze the reduction of benzophenone, the imprinted polymers showed a significantly higher activity (up to a factor of seven) than control polymers without cavities. Out of a mixture of seven different aromatic and aliphatic ketones,

benzophenone

was preferentially reduced when the imprinted polymer was used. Also, the specificity of the catalyst for diaryl ketones was confirmed in a reaction with a bifunctional substrate, 4-acetyl-benzophenone; the diaryl ketone was reduced faster with the imprinted catalyst than the acetyl group. The opposite regioselectivity was observed with the control polymer. Both the activity and the selectivity of the imprinted catalysts are dependent on how the Ru complexes are attached to the polymer backbone. A double connection proved to give superior results.

RE.CNT 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 30 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2000:865353 CAPLUS

DN 134:29131
 TI Method for preparation of optically active 3-pentyn-2-ol
 IN Takehara, Jun; Watanabe, Yoshiji; Ichikawa, Shuji
 PA Mitsubishi Chemical Corp., Japan
 SO Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 2000344694	A	20001212	JP 1999-153489	19990601 <--
PRAI	JP 1999-153489		19990601		

OS CASREACT 134:29131; MARPAT 134:29131

AB Optically active 3-pentyn-2-ol, which is useful as an intermediate for drugs, is industrially prepared in high chemical and optical yields by hydrogen-transfer asym. reduction of 3-pentyn-2-one with formic acid in the presence of a base and a catalyst consisting of a combination of group VII metal compound and an asym. ligand represented by formula R₆NHC*HR₃C*HR₄NHR₅ [R₃, R₄ = (un)substituted alkyl, aryl, or aromatic heterocyclyl; or R₃ and R₄ are combined or condensed together to form a ring; R₅, R₆ = H, lower alkyl, acyl, CONH₂, thioacyl, thiocarbamoyl, alkyl, arylsulfonyl; * represents an asym. carbon atom]. Thus, 1.94 g 3-pentyn-2-one, 6.4 mL MeCN, 75 mg (R,R)-N-p-toluenesulfonyl-1,2-diphenylethylenediamine-ruthenium(p-cymene)Cl complex (RR-TsDPEN-RuCl) (preparation given) were successively added to a 3.74 g portion of a mixture of 21.2 g formic acid and 20.2 g Et₃N and stirred at room temperature for 31 h to give 49% (R)-3-pentyn-2-ol (>94% ee).

L5 ANSWER 31 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2000:863163 CAPLUS
 DN 134:147755

TI Stereocontrolled synthesis of optically active β -D-glucopyranosides of 3-hydroxy-7,8-didehydro- β -ionol

AU Yamano, Yumiko; Watanabe, Yasuko; Watanabe, Naoharu; Ito, Masayoshi
 CS Kobe Pharmaceutical University, Kobe, 658-8558, Japan

SO Chemical & Pharmaceutical Bulletin (2000), 48(12), 2017-2018
 CODEN: CPBTAL; ISSN: 0009-2363

PB Pharmaceutical Society of Japan

DT Journal

LA English

OS CASREACT 134:147755

AB A stereocontrolled synthesis of optically active β -D-glucopyranosides of 3-hydroxy-7,8-didehydro- β -ionol utilizing an asym. transfer hydrogenation to α,β -acetylenic ketones catalyzed by chiral ruthenium complexes as the key step is described.

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 32 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2000:836355 CAPLUS
 DN 134:147475

TI Stereoselective synthesis of optically active pyridyl alcohols via asymmetric transfer hydrogenation of pyridyl ketones

AU Okano, K.; Murata, K.; Ikariya, T.

CS Tsukuba Research Center, Mitsubishi Chemical Corporation, Ibaraki, Inashiki, Ami, Chuo, 300-03, Japan

SO Tetrahedron Letters (2000), 41(48), 9277-9280
 CODEN: TELEAY; ISSN: 0040-4039

PB Elsevier Science Ltd.

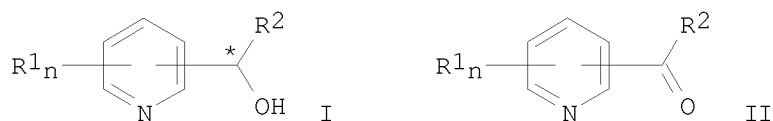
DT Journal

LA English

OS CASREACT 134:147475
 AB A chiral Ru(II) complex, RuCl[(S,S)-N-(p-toluenesulfonyl)-1,2-diphenyl-ethylenediamine](p-cymene), serves as an efficient catalyst for asym. transfer hydrogenation of 2-acetylpyridine with a substrate to catalyst molar ratio of 200-1000 with HCOOH as a hydrogen source to give (S)-1-(2-pyridyl)ethanol in an almost quant. yield and with 95% ee.
 RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 33 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2000:833284 CAPLUS
 DN 134:17401
 TI Preparation of optical active pyridyl alcohols
 IN Okano, Kazuya
 PA Mitsubishi Chemical Corp., Japan
 SO Jpn. Kokai Tokkyo Koho, 8 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000327659	A	20001128	JP 2000-39029	20000217 <--
PRAI	JP 1999-67901	A	19990315		
OS	CASREACT 134:17401; MARPAT 134:17401				
GI					



AB Title compds. I (R₁ = H, halo, lower alkyl, lower alkynyl, lower alkenyl, (un)substituted Ph, aromatic heterocyclyl, etc.; n = 1-4; R₂ = lower alkyl, lower alkenyl, lower alkynyl, (un)substituted Ph, aromatic heterocyclyl) are prepared by asym. reduction of acylpyridines II (R₁, R₂, x = same as I) with H donors in the presence of catalysts containing Group VIII metal compds. and asym. ligands R₆NHCHR₃CHR₄NHR₅ (R₃, R₄ = (un)substituted alkyl, aryl, aromatic heterocyclyl; R₃R₄ may form ring; R₆, R₆ = H, lower alkyl, acyl, carbamoyl, thioacyl, etc). 2-Acetylpyridine was reacted in the presence of catalysts prepared from [RuCl₂(cymene)]₂ and (S,S)-p-toluenesulfonyldiphenylethylenediamine in formic acid/NEt₃ at room temperature for 48 h to give 97% 1-(2-pyridyl)ethanol.

L5 ANSWER 34 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2000:786264 CAPLUS
 DN 134:115515
 TI Stereoselective synthesis of optically active α-hydroxy ketones and anti-1,2-diols via asymmetric transfer hydrogenation of unsymmetrically substituted 1,2-diketones
 AU Koike, Takashi; Murata, Kunihiro; Ikariya, Takao
 CS Graduate School of Science and Engineering Tokyo Institute of Technology, CREST, Japan Science and Technology Corporation, Meguro-ku, Tokyo, 152-8552, Japan
 SO Organic Letters (2000), 2(24), 3833-3836
 CODEN: ORLEF7; ISSN: 1523-7060
 PB American Chemical Society

DT Journal
 LA English
 OS CASREACT 134:115515
 AB A well-defined chiral Ru catalyst RuCl(N-(p-toluenesulfonyl)-1,2-diphenylethylenediamine)(η^6 -p-cymene) effectively promotes asym. transfer hydrogenation of 1-aryl-1,2-propanedione with HCO₂H/NEt₃, leading preferentially to optically active 1-aryl-2-hydroxy-1-propanone with up to 99% ee and 89% yield at 10°C. The reaction at 40°C gives anti-1-aryl-1,2-propanediol with up to 95% ee and 78% yield. This is a highly efficient procedure for the synthesis of optically active anti-diols.

RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 35 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2000:725614 CAPLUS

DN 133:296377

TI Method for the preparation of tricyclic amino alcohol derivatives through azides

IN Matsubara, Koki; Kida, Hitoshi

PA Asahi Kasei Kogyo Kabushiki Kaisha, Japan

SO PCT Int. Appl., 92 pp.

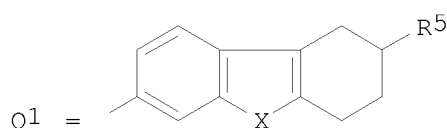
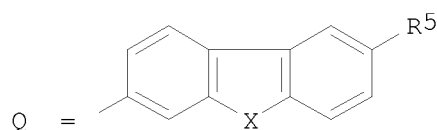
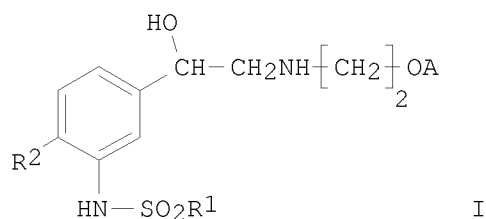
CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000059885	A1	20001012	WO 2000-JP1767	20000323 <--
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2365503	A1	20001012	CA 2000-2365503	20000323 <--
	EP 1174426	A1	20020123	EP 2000-911300	20000323 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	NO 2001004781	A	20011116	NO 2001-4781	20011001 <--
PRAI	JP 1999-95430	A	19990401		
	WO 2000-JP1767	W	20000323		
OS	CASREACT 133:296377; MARPAT 133:296377				
GI					



AB Tricyclic amino alc. derivs. represented by general formula [I; wherein R1 is lower alkyl or benzyl; *1 represents an asym. carbon atom; R2 is hydrogen, halogeno or hydroxyl; and A is a substituent represented by general formula Q or Q1 (wherein X is NH, O, or S; R5 is hydrogen, hydroxyl, amino, or acetyl amino; and *2 represents an asym. carbon atom when R5 is not hydrogen)] are prepared via asym. reduction of phenacyl azides (II; R21 is hydrogen, halogeno or (un)protected hydroxyl; R3 is hydrogen or amino-protecting group; and R1 is lower alkyl or benzyl) to chiral azido alcs. (III) or amino alcs. (IV; R21, R1, R3 are same as above). This process makes it possible to prepare the derivs. I by a short, easy, inexpensive, and practical production process excellent in industrial workability. Compds. I are useful in the treatment and prevention of diabetes, obesity, hyperlipidemia, and so on (no data). Thus, 58 mg [(S,S)-N-methanesulfonyl-1,2-diphenylethylenediamine](p-cymene)ruthenium (preparation given) was added to a solution of 3.6 g 2-azido-1-(4-benzyloxy-3-methylsulfonylaminophenyl)ethanone (preparation given) in 2.5 mL formic acid/triethylamine solution (Fluka) in 6.5 mL THF and stirred at 5° for 43 h to give 95.0% (R)-2-azido-1-(4-benzyloxy-3-methylsulfonylaminophenyl)ethanol (94.2 %e.e.). In another example, 2-amino-1-(4-benzyloxy-3-methylsulfonylaminophenyl)ethanone hydrochloride (1.0 g) and 2 μ L Et3N were added to a solution of 133 mg chloro(1,5-cyclooctadiene)rhodium(II) dimer and 397 mg (2R,4R)-N-(tert-butoxycarbonyl)-4-dicyclohexylphosphino-2-diphenylphosphinopyrrolidine and stirred under hydrogen atmospheric at room temperature for 24 h to give 94.0% (R)-2-amino-1-(4-benzyloxy-3-methylsulfonylaminophenyl)ethanol (V). Reductive benzylation of V with benzaldehyde in the presence of Pt20 under hydrogen atmospheric at room temperature for 15 h followed by amidation with (9H-carbazol-2-yloxy)acetic acid using DCC in THF at room temperature for 24 h, borane reduction in THF, and hydrogenolysis over 10% Pd-C in MeOH gave (R)-2-[N-[2-(9H-carbazol-2-yloxy)]ethyl]amino-1-

(4-hydroxy-3-methylsulfonylaminophenyl)ethanol.

RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 36 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2000:703424 CAPLUS
DN 134:29158
TI Asymmetric Transfer Hydrogenation of Benzaldehydes
AU Yamada, Issaku; Noyori, Ryoji
CS Department of Chemistry and Research Center for Materials Science, Nagoya
University, Chikusa Nagoya, 464-8602, Japan
SO Organic Letters (2000), 2(22), 3425-3427
CODEN: ORLEF7; ISSN: 1523-7060
PB American Chemical Society
DT Journal
LA English
OS CASREACT 134:29158
AB A combined system of RuCl[(R,R)-YCH(C6H5)CH(C6H5)NH2](η -6-arene) (Y =
NSO2C6H4-4-CH3 or O) and potassium tert-butoxide catalyzes the asym.
transfer hydrogenation of various benzaldehyde-1-d derivs. with 2-propanol
to yield (R)-benzyl-1-d alcs. in 95-99% ee and with >99% isotopic purity.
Reaction of benzaldehydes with a DCO2D-triethylamine mixture and the R,R
catalyst affords the S deuterated alcs. in 97-99% ee.

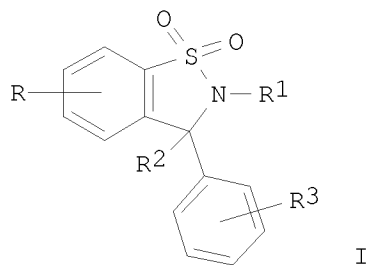
RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 37 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2000:688088 CAPLUS
DN 133:266843
TI Preparation of arylsultams as HIV reverse transcriptase inhibitors
IN Mao, Jianmin; Baker, David C.
PA University of Tennessee Research Corporation, USA
SO PCT Int. Appl., 68 pp.
CODEN: PIXXD2

DT Patent
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	WO 2000056332	A1	20000928	WO 2000-US7892	20000324 <--
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,				
	CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,				
	IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,				
	MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,				
	SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ,				
	BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,				
	DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,				
	CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 6458962	B1	20021001	US 1999-413054	19991001 <--
PRAI	US 1999-126252P	P	19990325		
	US 1999-150132P	P	19990820		
	US 1999-413054	A	19991001		
OS	CASREACT 133:266843; MARPAT 133:266843				
GI					



AB Title compound enantiomers [I; R = H or Me; R1 = H, alkyl, Ph; R2 = H; R3 = H, halo, OMe, Ph, etc.] were prepared by reduction of I (R1R2 = bond) in the presence of chiral reduction catalysts. Thus, 3-MeC6H4MgCl was condensed with saccharin and the product dehydrated to give I (R = H, R3 = 3-Me) (II; R1R2 = bond) which was treated with HCO2H/Et3N in the presence of (S)-RhClCp*[(1R,2R)-N-p-TsNCHPhCHPhNH2] (preparation given) to give (+)-II (R1 = R2 = H) of 95% ee. Data for biol. activity of I were given.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 38 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2000:653711 CAPLUS

DN 133:237676

TI Method for preparation of optically active 1,2-diols by stereoselective reduction of α -hydroxy ketones

IN Okano, Kazuya; Iwane, Hiroshi; Murata, Kunihiro; Ikariya, Takao

PA Mitsubishi Chemical Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000256234	A	20000919	JP 1999-55790	19990303 <--
	JP 3630002	B2	20050316		
PRAI	JP 1999-55790		19990303		

OS CASREACT 133:237676; MARPAT 133:237676

AB The title diols of formula R1C*H(OH)C*R2OH [R1, R2 = (un)substituted aromatic hydrocarbyl, aromatic heterocyclyl, or aliphatic hydrocarbyl; or R1 and R2 are bonded together to form a fused ring; * represents an asym. carbon atom] are prepared by asym. reduction of α -hydroxy ketone of formula R1COCHR3OH (R1, R2 = same as above) with chiral ligand containing group VB metal, group VIII metal compound, hydrogen donor, and base. This process provides simple and productive asym. synthesis of 1,2-diols of high optical purity. Thus, 150 mL 2-propanol and 7 mL Et3N were added to 7.66 g [RuCl2(p-cymene)]2 and 9.16 g (S,S)-N-p-toluenesulfonyldiphenylethylenediamine (TsDPEN), stirred at 80° under N, and ice-cooled to give 79% (S,S)-TsDPEN-Ru (I) as an orange crystal. Benzoin (2.12 g) was dissolved in 2 mL DMF with heating to 40°, followed by adding a solution of formic acid (2.04 g) and 2.64 g Et3N, purging the reaction solution with N, and adding a solution of 32 mg I in 0.3 mL DMF, and the resulting mixture was stirred at 40° for 24 h to give 63% (1R,2R)-1,2-diphenylethane-1,2-diol (>99% ee).

L5 ANSWER 39 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2000:529456 CAPLUS

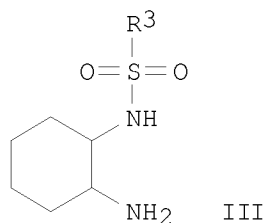
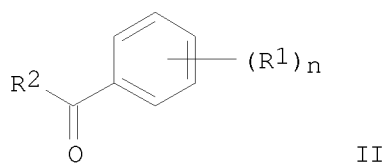
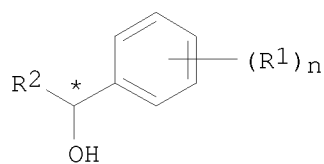
DN 133:120139

TI Preparation of optically active α -alkylbenzyl alcohols

IN Ikariya, Takao

PA Mitsubishi Chemical Corp., Japan
 SO Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000212110	A	20000802	JP 1999-18143	19990127 <--
PRAI	JP 1999-18143		19990127		
OS	CASREACT 133:120139; MARPAT 133:120139				
GI					



AB Title compds. I (R1 = H, halo, alkyl, alkenyl, alkynyl, alkoxy, etc.; R2 = alkyl, cycloalkyl; n = 1-5) are prepared by asym. reduction of phenylalkylketones II (R1, R2, n = same as I) with H donors in the presence of catalysts containing Group 9 metal compds. and optically active cyclohexyldiamines III [R3 = lower alkyl, (un)substituted Ph]. M-trifluoromethylacetophenone was reduced in the presence of di-μ-chlorodichlorobis(pentamethylcyclopentadienyl)dirhodium(III)-(1R,2R)-N-(p-toluenesulfonyl)-1,2-cyclohexanediamine complex and potassium tetrabutoxide in isopropanol to give a product at 99.5% conversion with 97.4% e.e.

L5 ANSWER 40 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2000:514942 CAPLUS
 DN 133:266962

TI Biomimetic catalysis with an immobilised chiral rhodium(III) complex
 AU Polborn, Kurt; Severin, Kay
 CS Institut für Anorganische Chemie der Ludwig-Maximilians-Universität,
 München, D-81377, Germany

SO European Journal of Inorganic Chemistry (2000), (8), 1687-1692
 CODEN: EJICFO; ISSN: 1434-1948

PB Wiley-VCH Verlag GmbH

DT Journal

LA English

OS CASREACT 133:266962

AB An organometallic transition state analog for the asym. reduction of acetophenone with a Cp*Rh complex was synthesized and structurally characterized - rac-[(C5Me5)Rh[OP(O)MePh](R,R-4-CH2:CHC6H4SO2NC6H10NH2)] (3). This complex has a chiral N,N'-chelate ligand with a styrene side chain to allow its incorporation into organic polymers. The remaining

coordination site is occupied by a methylphenylphosphinato ligand. This ligand acts as a pseudo substrate which mimics acetophenone. The conformation and configuration of 3 in the crystal are in excellent agreement with the postulated transition structure. Following the protocol of mol. imprinting, complex 3 was co-polymerized with ethylene glycol dimethacrylate in the presence of a porogen. The resulting polymer P3 was ground and sieved and the phosphinato ligand was substituted with a chloro ligand to generate a shape-selective cavity in proximity to the catalytically active metal center. When tested for its ability to catalyze the reduction of acetophenone and related substrates the imprinted polymer P3 showed a significantly higher activity than a control polymer P2 without a cavity. Excellent enantioselectivities (up to 95% ee) were obtained, with the catalyst P3 being more selective than the resp. control catalyst P2 ($\Delta ee = 2-9\%$). Competition expts. with acetophenone and a 2nd co-substrate revealed that the cavity generated with the phosphinato ligand is specific for acetophenone.

RE.CNT 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 41 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2000:468938 CAPLUS
DN 133:193095
TI Synthesis of simple enantiopure tetrahydro- β -carbolines and
tetrahydroisoquinolines
AU Tietze, Lutz F.; Zhou, Yifa; Topken, Enno
CS Institut fur Organische Chemie der Georg-August-Universitat Gottingen,
Gottingen, D-37077, Germany
SO European Journal of Organic Chemistry (2000), (12), 2247-2252
CODEN: EJOCFK; ISSN: 1434-193X
PB Wiley-VCH Verlag GmbH
DT Journal
LA English
OS CASREACT 133:193095
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Enantioselective hydrogenation of the imines I [R = CO₂Et, CH₂CO₂Et, CH₂CO₂Me, CH(CO₂Et)₂] and II with the Ru complex (R,R)-III led to the tetrahydro- β -carbolines (1S)-IV (R = CH₂CO₂Et), (1R)-IV (R = CO₂Et), and (1S)-IV (R = CH₂CO₂Me), and the tetrahydroisoquinoline (1S)-V with ee > 95%. By employing (S,S)-isomer of III the enantiomers are accessible. The imines I were obtained by oxidation of racemic IV with KMnO₄ in > 58% yield. The crystal structure of (1R)-I (R = CH₂CO₂Et) was determined via its the Mosher acid derivative

RE.CNT 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 42 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2000:464936 CAPLUS
DN 133:73778
TI Preparation of optically active 1,2-diols
IN Okano, kazuya; Iwane, Hiroshi
PA Mitsubishi Chemical Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000191567	A	20000711	JP 1998-366564	19981224 <--
	JP 3603630	B2	20041222		
PRAI	JP 1998-366564		19981224		
OS	CASREACT 133:73778; MARPAT 133:73778				
AB	HOCHR1CHR2OH [one group selected from R1 and R2 = (un)substituted aromatic hydrocarbyl, aromatic heterocyclyl, aliphatic hydrocarbyl; the other group = (un)substituted aliphatic hydrocarbyl; R1R2 may form ring] are prepared by asym. reduction of R1COCR2O (R1, R2 = same as above) with H donor in the presence of catalysts containing Group 8 metal compds. and R6NHCHR3CHR4NHR5 (R3, R4 = (un)substituted alkyl, aryl, aromatic heterocyclyl; R3R4 may form ring; R5, R6 = H, lower alkyl, acyl carbamoyl, thioacyl, thiocarbamoyl, alkyl, arylsulfonyl). 1,2-Cyclohexanedione was reduced with formic acid and Et3N in the presence of catalyst prepared from [RuCl2(p-cymene)]2 and (S,S)-N-p-toluenesulfonyldiphenylethylenediamine at room temperature for 48 h to give 1,2-cyclohexanediol with ratio of chiral isomer: meso isomer 59:41 at 99% conversion.				
L5	ANSWER 43 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN				
AN	2000:379754 CAPLUS				
DN	133:120192				
TI	Asymmetric hydrogen transfer protocol for a synthesis of (+)-frontalin and (-)-malyngolide				
AU	Kanada, Regina Miki; Taniguchi, Takahiko; Ogasawara, Kunio				
CS	Pharmaceutical Institute, Tohoku University, Sendai, 980-8578, Japan				
SO	Tetrahedron Letters (2000), 41(19), 3631-3635				
	CODEN: TELEAY; ISSN: 0040-4039				
PB	Elsevier Science Ltd.				
DT	Journal				
LA	English				
OS	CASREACT 133:120192				
AB	An insect aggregate pheromone (+)-frontalin and a marine antibiotic (-)-malyngolide, both bearing a quaternary stereogenic center in their mols., have been synthesized in diastereocontrolled manner by employing a catalytic asym. hydrogen transfer reaction as the key step. An inversion protocol allowing enantioconvergent use of the other enantiomeric resolved product has also been devised.				
RE.CNT	32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD				
	ALL CITATIONS AVAILABLE IN THE RE FORMAT				
L5	ANSWER 44 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN				
AN	2000:335846 CAPLUS				
DN	133:89623				
TI	Studies of the Synthesis and Thermochemistry of Coordinatively Unsaturated Chelate Complexes (η^5 -C5Me5)IrL2 (L2 = TsNCH2CH2NTs, TsNCH2CO2, CO2CO2)				
AU	Grotjahn, Douglas B.; Lo, H. Christine; Dinoso, Jason; Adkins, Charles D.; Li, Chunbang; Nolan, Steven P.; Hubbard, John L.				
CS	Department of Chemistry, San Diego State University, San Diego, CA, 92182-1030, USA				
SO	Inorganic Chemistry (2000), 39(12), 2493-2499				
	CODEN: INOCAJ; ISSN: 0020-1669				
PB	American Chemical Society				
DT	Journal				
LA	English				
AB	A comparative synthetic, structural, and thermochem. study on a series of chelate complexes containing the fragment (η^5 -C5Me5)Ir [(η^5 -C5Me5)Ir(TsNCH2CH2NTs) (1), (η^5 -C5Me5)Ir(TsNCH2CO2) (2), (η^5 -C5Me5)Ir(CO2CO2) (3)] was performed to clarify the roles of carboxylato and sulfonamido ligands. Whereas 1 and 2 are monomeric in				

solution and in the solid state, 3 appears to exist as an oligomer or polymer, (3)_n, which can be broken up by addition of a ligand L such as a phosphine, CO, or 2-methoxypyridine to form (η⁵-C₅Me₅)Ir(L)(CO₂CO₂) (6). The synthesis of (3)_n from [(η⁵-C₅Me₅)IrCl(μ-Cl)]₂ required the use of silver oxalate in CH₃CN, but if other solvents were used, the bridging oxalato complex (η⁵-C₅Me₅)IrCl(μ-η²-η²-C₂O₄)ClIr(η⁵-C₅Me₅) (7) was obtained and identified by x-ray diffraction. Enthalpies for reaction of THF-soluble monomers 1 and 2 with PMe₃ were determined to be -28.7(0.5) and -28.5(0.4) kcal mol⁻¹, resp. The oligomerization behavior of 3 may be a result of reduced σ- or π-donation of carboxylato ligands compared to N-tosylamido ligands, because the values for νCO in oxalato and bissulfonamido complexes 6-CO and (η⁵-C₅Me₅)Ir(CO)(TsNCH₂CH₂NTs) (4-CO) were 2064 and 2042 cm⁻¹, resp.

RE.CNT 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 45 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2000:144555 CAPLUS

DN 132:194522

TI Preparation of aliphatic dienes for use in perfume formulation

IN Fujiwhara, Mitsuhiko; Nishikawa, Takenobu; Hori, Yoji; Hagiwara, Toshimitsu; Iwai, Hisao; Miura, Takashi

PA Takasago International Corporation, Japan

SO Eur. Pat. Appl., 35 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 982286	A2	20000301	EP 1999-402131	19990826 <--
	EP 982286	A3	20010103		
	EP 982286	B1	20050223		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2000143571	A	20000523	JP 1998-321700	19981112 <--
	JP 3488103	B2	20040119		
	JP 2000226353	A	20000815	JP 1999-25781	19990203 <--
	JP 2000136152	A	20000516	JP 1999-194185	19990708 <--
	US 6239324	B1	20010529	US 1999-383920	19990826 <--
	ES 2237895	T3	20050801	ES 1999-402131	19990826
	US 6323174	B1	20011127	US 2000-571549	20000516 <--
PRAI	JP 1998-240413	A	19980826		
	JP 1998-321700	A	19981112		
	JP 1999-25781	A	19990203		
	JP 1999-194185	A	19990708		
	US 1999-383920	A3	19990826		

OS CASREACT 132:194522; MARPAT 132:194522

AB Alkadienes, i.e. H₂C:CHCH(R₁)CH₂CH:CHR₂ (R₁ = H, alkyl, alkenyl; R₂ = Ph or substituted Ph, acyloxy), were prepared via ruthenium complex intermediates for use as perfume additives. Thus, H₂C:CHCH(Me)CH₂CH:CHOAc was prepared with 14% yield by reaction of vinyl acetate with chloro[(1,2,3,4-η)-2-methyl-1,3-butadiene][(1,2,3,4,5-η)-1,2,3,4,5-pentamethyl-2,4-cyclopentadien-1-yl]ruthenium (I). The ruthenium complex I was prepared by reaction of di-μ-chlorodichlorobis[(1,2,3,4,5-η)-1,2,3,4,5-pentamethyl-2,4-cyclopentadien-1-yl]diruthenium with isoprene. Perfume formulation of the prepared alkadienes were also presented.

L5 ANSWER 46 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2000:43330 CAPLUS

DN 132:93097

TI Method for preparation of optically active 1,2-diols by asymmetric hydrogen-transfer reduction of diketones

IN Okano, Kazuya; Shirasaki, Yoshikazu; Iwane, Hiroshi

PA Mitsubishi Chemical Industries Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 2000016954	A	20000118	JP 1998-184033	19980630 <--
	JP 3562322	B2	20040908		
PRAI	JP 1998-184033		19980630		

OS CASREACT 132:93097; MARPAT 132:93097

AB Asym. reduction of diketones R1COCOR2 (R1, R2 = aromatic hydrocarbonyl or heterocyclyl optionally possessing substituents; or R1 and R2 are bonded or condensed to each other to form a ring) with a hydrogen donor in the presence of a group VIII metal compound and a chiral ethylenediamine ligand represented by formula R9C*H(NHR8)C*HR10NHR5 [R3, R4 = (un)substituted alkyl, Ph, or aromatic heterocyclyl; or R3 and R4 are bonded or condensed to each other to form a ring; R5, R6 = H, lower alkyl, acyl, CONH2, thioacyl, thiocarbamoyl, alkyl or arylsulfonyl] gives optically active 1,2-diols represented by formula R1CH(OH)CHR2OH in high yield with high stereoselectivity. Thus, 150 mL 2-propanol and 7 mL Et3N were added to 7.66 g [RuCl2(p-cymene)]2 and 9.16 g (S,S)-N-tosyl-1,2-diphenylethylenediamine and stirred at 80° under N for 1 h and ice-cooled to give 79% orange crystal. A solution of the latter crystal (153 mg) in 0.5 mL DMF was added to a 5:2 azeotropic mixture of formic acid and Et3N 18, Et3N 5.8, DMF 11.2 mL, and 10.8 g benzyl and stirred at room temperature for 72 h to give, after recrystn. from 92% ethanol, 70% (R,R)-1,2-diphenylethanediol of 97% optical purity.

L5 ANSWER 47 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1999:803611 CAPLUS

DN 132:165963

TI Practical Asymmetric Synthesis of (S)-MA20565, a Wide-Spectrum Agricultural Fungicide

AU Tanaka, Ken; Katsurada, Manabu; Ohno, Fumihiko; Shiga, Yasushi; Oda, Masatsugu; Miyagi, Miwa; Takehara, Jun; Okano, Kazuya

CS Yokohama Research Center, Mitsubishi Chemical Corporation, Aoba-ku Yokohama Kanagawa, 227-8502, Japan

SO Journal of Organic Chemistry (2000), 65(2), 432-437

CODEN: JOCEAH; ISSN: 0022-3263

PB American Chemical Society

DT Journal

LA English

OS CASREACT 132:165963

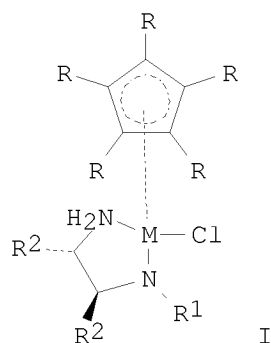
AB A practical asym. synthesis of a wide-spectrum agricultural fungicide, (S)-MA20565 (1), is described. The convergent synthesis was achieved starting from com. available 3-(trifluoromethyl)aniline (7) in 44% overall yield through five steps and 2-bromobenzaldehyde (9) in 48% overall yield through four steps, resp. (S)-O-[1-(3-Trifluoromethylphenyl)ethyl]hydroxylamine (2), a key intermediate of 1, was prepared via ruthenium(II)-catalyzed asym. transfer hydrogenation of 1-(3-trifluoromethylphenyl)ethanone (6) followed by chlorination using methanesulfonyl chloride and oxyamination using potassium acetohydroxamate with high level of stereocontrol.

RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 48 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1999:772610 CAPLUS
 DN 132:22748
 TI Preparation of cyclopentadiene transition metal complexes as catalysts for preparation of optically active benzyl alcohols
 IN Majima, Kazushi; Tani, Kazuhide; Sayo, Noboru
 PA Takasago Perfumery Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 7 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11335385	A	19991207	JP 1998-153689	19980520 <--
PRAI	JP 1998-153689		19980520		
OS	CASREACT 132:22748; MARPAT 132:22748				
GI					



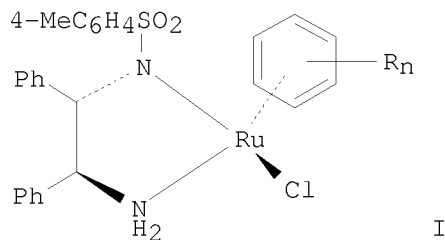
AB Optically active $R_4C_6H_4CH(OH)CH_2R_3$ ($R_3 = H$, lower alkyl; $R_4 = H$, lower alkyl, lower alkoxy, halo, NH_2 , NMe_2 , CO_2H , lower alkoxy carbonyl, NO_2 ; R_3R_4 may form ring) are prepared by asym. H-transfer reduction of $R_4C_6H_4COCH_2R_3$ ($R_3, R_4 =$ same as above) in the presence of title complexes I [$R = H, Me$; $2R$ may form 6-membered ring; $M = Rh, Ir, Co$; $R_1 = MeSO_2, CF_3SO_2, PhSO_2, p-MeC_6H_4SO_2$, naphthalenesulfonyl, camphorsulfonyl; $R_2 =$ cyclohexyl, (substituted) Ph, naphthyl; $2R_2$ may form cyclohexane ring] or their base-(and i-PrOH-) treated products. [Cp^*IrCl_2] $_2$ ($Cp^* =$ pentamethylcyclopentadienyl) was reacted with (S,S)-N-p-toluenesulfonyl-1,2-diphenylethylenediamine in THF in the presence of Et_3N for 2 h to give 87% I ($R = Me, M = Ir, R_1 = p-MeC_6H_4SO_2, R_2 = Ph$), which was used as a catalyst in reduction of $PhCOMe$ in i-PrOH in the presence of KOH at room temperature for 24 h to give 40% (S)-1-phenylethanol with 90% ee.

L5 ANSWER 49 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1999:747407 CAPLUS
 DN 131:336814
 TI Preparation of optically active aromatic alcohols
 IN Okano, Kazuya; Miyagi, Miwa; Iwane, Hiroshi
 PA Mitsubishi Chemical Industries Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI JP 11322649 A 19991124 JP 1998-303951 19981026 <--
 PRAI JP 1998-64994 A 19980316
 OS CASREACT 131:336814; MARPAT 131:336814
 AB Optically active R1CHR2OH [R1, R2 = (un)substituted aromatic hydrocarbyl;
 (un)saturated aliphatic hydrocarbyl, alicyclic hydrocarbyl, heterocyclic
 hydrocarbyl; R1R2 may form ring] are prepared by H-transfer asym. reduction of
 R1COR2 (R1, R2 = same as above) with 2.2 mol formic acid per mol of amines
 as H donor in the presence of transition metal catalysts and tertiary
 amines. M-trifluoromethylacetophenone was reduced with HCO2H in the
 presence of NEt3 and [RuCl2(cymene)]2 and p-toluenesulfonyldiphenylethylen
 ediamine at room temperature for 25 h to give 97.8% S-1-(3-
 trifluoromethylphenyl)ethanol. with 92.2% e.e.

 L5 ANSWER 50 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1999:567011 CAPLUS
 DN 131:286219
 TI A Practical Stereoselective Synthesis of Chiral Hydrobenzoinis via
 Asymmetric Transfer Hydrogenation of Benzils
 AU Murata, Kunihiro; Okano, Kazuya; Miyagi, Miwa; Iwane, Hiroshi; Noyori,
 Ryoji; Ikariya, Takao
 CS Department of Applied Chemistry, Graduate School of Science and
 Engineering, Tokyo Institute of Technology and CREST Japan Science and
 Technology Corporation, Meguro-ku Tokyo, 152-8552, Japan
 SO Organic Letters (1999), 1(7), 1119-1121
 CODEN: ORLEF7; ISSN: 1523-7060
 PB American Chemical Society
 DT Journal
 LA English
 OS CASREACT 131:286219
 GI



AB Asym. reduction of benzils with RuCl[(S,S)-Tsdpen](η^6 -arenes) I (Rn = H;
 1-Me, 4-i-Pr; 1,3,5-Me3; 1,2,3,4,5,6-Me6) in a mixture of formic acid and
 triethylamine proceeds with a substrate/catalyst molar ratio of 1000-2000
 to give (R,R)-hydrobenzoinis quant. with high diastereomeric (97% de) and
 enantiomeric purities (>99% ee). The benzoin intermediate with a chirally
 labile stereogenic center is converted to one major stereoisomer, the
 (R,R)-product, via dynamic kinetic resolution
 RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 51 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1999:529904 CAPLUS
 DN 131:299536
 TI A Chiral Rhodium Complex for Rapid Asymmetric Transfer Hydrogenation of
 Imines with High Enantioselectivity
 AU Mao, Jianmin; Baker, David C.
 CS Department of Chemistry, The University of Tennessee, Knoxville, TN,
 37996-1600, USA
 SO Organic Letters (1999), 1(6), 841-843

CODEN: ORLEF7; ISSN: 1523-7060

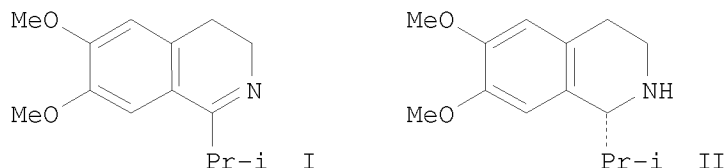
PB American Chemical Society

DT Journal

LA English

OS CASREACT 131:299536

GI



AB A chiral Rh complex, (R)-Cp*RhCl[(1S,2S)-p-TsNCHPhCHPhNH₂] (1a, (S,S)-Cp*RhClTsDPEN), generated from [Cp*RhCl₂]₂ and (1S,2S)-N-p-toluenesulfonyl-1,2-diphenylethylenediamine [(S,S)-TsDPEN], and its enantiomer 1b provide superior catalysts for the rapid, high-yielding, asym. transfer hydrogenation of some heterocyclic imines, using an HCO₂H-Et₃N azeotrope as the H source. For example, dihydroisoquinoline I underwent asym. hydrogenation to give 96% tetrahydroisoquinoline (R)-II (99% ee) when the hydrogenation was conducted at a substrate/catalyst (S/C) molar ratio of 200:1 using a 5:2 formic acid-triethylamine azeotrope as the hydrogen source and the isolated crystalline complex 1a as catalyst in CH₂Cl₂ at 20° for 10 min. When the catalyst 1b was formed in situ prior to hydrogen, equivalent results were obtained. The catalysts were well behaved in a range of solvents, both protic and aprotic; however, the reactions gave slightly better enantioselectivity in polar solvents. Complex 1b was characterized by single-crystal x-ray diffraction anal.

RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 52 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1999:516511 CAPLUS

DN 131:286387

TI Substituted Isoquinolines by Noyori Transfer Hydrogenation:
Enantioselective Synthesis of Chiral Diamines Containing an Aniline
Subunit

AU Vedejs, E.; Trapencieris, P.; Suna, E.

CS University of Wisconsin, Madison, WI, 53706, USA

SO Journal of Organic Chemistry (1999), 64(18), 6724-6729

CODEN: JOCEAH; ISSN: 0022-3263

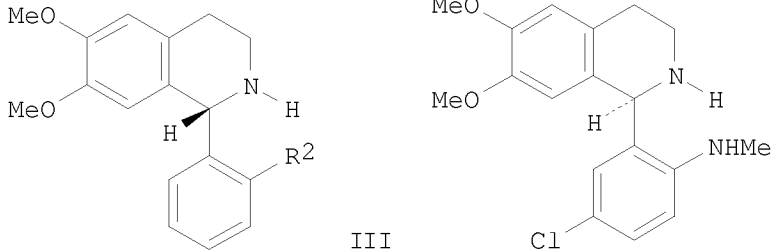
PB American Chemical Society

DT Journal

LA English

OS CASREACT 131:286387

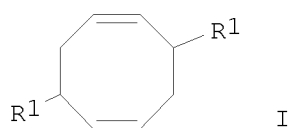
GI



crystallization of the hydrochloride salt. Reaction of III with NH_3 or MeNH_2 in the presence of Cu/CuCl gave the chiral anilines III ($\text{R}_1 = \text{MeO}$; $\text{R}_2 = \text{NH}_2, \text{MeNH}$). III ($\text{R}_2 = \text{MeNH}$) is comparable to the com. available IV as a chiral proton donor for amide enolates and provides access to the hitherto unavailable enantiomeric series.

L5 ANSWER 53 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1999:481282 CAPLUS
DN 131:129705
TI Preparation of cyclooctadienes
IN Fujiwara, Mitsuhiro; Miura, Takashi; Hori, Yoji; Nishikawa, Takenobu
PA Takasago Perfumery Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 11209314	A	19990803	JP 1998-313885	19980930 <--
PRAI	JP 1997-302306	A	19970930		
OS	CASREACT 131:129705;	MARPAT	131:129705		
GI					



AB Title compds. I (R1 = H, C1-3 alkyl, C2-3 alkenyl) are prepared by reaction of H₂C:CHCR₁:CH₂ (R1 = same as I) in hydrophilic solvents in the presence of divalent Ru compds. Isoprene was cyclized in EtOH/H₂O in the presence of (η⁵-pentamethylcyclopentadienyl)(η⁴-isoprene)ruthenium(II) chloride at 100° for 20 h to give 41% 3,7-dimethyl-1,5-cyclooctadiene.

L5 ANSWER 54 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1999:476750 CAPLUS

DN 131:257240

TI Oxidative resolution of 2-cyclopentenols by the asymmetric hydrogen transfer protocol

AU Iura, Yosuke; Sugahara, Tsutomu; Ogasawara, Kunio

CS Pharmaceutical Institute, Tohoku University, Sendai, 980-8578, Japan

SO Tetrahedron Letters (1999), 40(31), 5735-5738

CODEN: TELEAY; ISSN: 0040-4039

PB Elsevier Science Ltd.

DT Journal

LA English

OS CASREACT 131:257240

AB A RuII-chiral amine complex has accomplished oxidative resolution of the 2-cyclopentene-1-ols having a bicyclo[2.2.1]heptene background to afford the cyclopentenones and the cyclopentenols both in good to excellent optical and chemical yields by an asym. hydrogen transfer reaction. The hydrogen transfer occurred selectively at the allylic methine hydrogen even though allylic methylene hydrogens are present at the same relative position. The resolution of 3a,4,7,7a-tetrahydro-4,7-methano-1H-inden-1-ol in the presence of [N-[(1S,2S)-2-(amino-κN)-1,2-diphenylethyl]-4-methylbenzenesulfonamidato(2-)-κN][(1,2,3,4,5,6-η)-1-methyl-4-(1-methylethyl)benzene]ruthenium gave (-)-3a,4,7,7a-tetrahydro-4,7-methano-1H-inden-1-ol. The latter was readily transformed into (3aR,4S,7R,7aS)-3a,4,7,7a-tetrahydro-4,7-methano-1H-inden-1-one which is a synthetic precursor to (-)-pentenomycin I.

RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 55 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1999:343649 CAPLUS

DN 130:338270

TI Process for the preparation of trans-(R,R)-actinol

IN Cramer, Yvo; Puentener, Kurt; Scalone, Michelangelo

PA F. Hoffmann-La Roche A.-G., Switz.

SO Eur. Pat. Appl., 16 pp.

CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 915076	A1	19990512	EP 1998-120544	19981030 <--
	EP 915076	B1	20020116		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

	US 6187961	B1	20010213	US 1998-175784	19981020 <--
	ES 2170443	T3	20020801	ES 1998-120544	19981030 <--
	CA 2253888	A1	19990506	CA 1998-2253888	19981104 <--
	BR 9804565	A	20000411	BR 1998-4565	19981105 <--
	IN 188153	A1	20020824	IN 1998-MA2492	19981105 <--
	CN 1223998	A	19990728	CN 1998-123951	19981106 <--
	JP 11236345	A	19990831	JP 1998-315515	19981106 <--
	CN 1550482	A	20041201	CN 2004-10003268	19981106
	US 6300509	B1	20011009	US 2000-705412	20001103 <--
	IN 2000MA01109	A	20050617	IN 2000-MA1109	20001221
PRAI	EP 1997-119381	A	19971106		
	EP 1998-116697	A	19980903		
	US 1998-175784	A3	19981020		
	IN 1998-MA2492	A3	19981105		

OS CASREACT 130:338270; MARPAT 130:338270

AB (R,R)-Actinol is prepared by transfer hydrogenation of (R)-levodione in presence of a hydrogen donor, such as Me₂CHOH, and a catalyst RuH[L(-H)](Y) [L = neutral ligand; Y = monosulfonylated diamine]. Thus, (R)-levodione was reduced with Me₂CHOH in presence of [Ru((S,S)-Ts-DPEN{-2H})(p-cymene)] [(S,S)-Ts-DPEN = H₂NCHPhCHPhNHTs] to give (R,R)-actinol with an ee of 99.4%.

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 56 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1999:168161 CAPLUS

DN 130:296464

TI New Chiral Rhodium and Iridium Complexes with Chiral Diamine Ligands for Asymmetric Transfer Hydrogenation of Aromatic Ketones

AU Murata, Kunihiko; Ikariya, Takao; Noyori, Ryoji

CS Department of Chemical Engineering Faculty of Engineering, Tokyo Institute of Technology and CREST, Tokyo, 152-8552, Japan

SO Journal of Organic Chemistry (1999), 64(7), 2186-2187

CODEN: JOCEAH; ISSN: 0022-3263

PB American Chemical Society

DT Journal

LA English

OS CASREACT 130:296464

AB Title complexes were prepared and characterized. The complexes catalyzed the stereoselective transfer hydrogenation of Ph ketones with Me₂CHOH to give the 1-phenylalkanols in high yield and ee.

RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 57 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1999:83161 CAPLUS

DN 130:222808

TI Ruthenium complexes containing diamine-based ligands as catalysts for insertion of carbenes into O-H bonds of alcohols

AU Simal, Francois; Demonceau, Albert; Noels, Alfred F.

CS Laboratory of Macromolecular Chemistry and Organic Catalysis, C.E.R.M., University of Liege, Liege, B-4000, Belg.

SO Tetrahedron Letters (1999), 40(1), 63-66

CODEN: TELEAY; ISSN: 0040-4039

PB Elsevier Science Ltd.

DT Journal

LA English

AB Ruthenium complexes with N-(p-toluenesulfonyl)diamine ligands are efficient catalysts for insertion of carbenes generated from diazo compds. into O-H bonds of alcs. The insertion reaction of Et diazoacetate into the O-H bond of allyl alc. gave (2-propenyloxy)acetic acid Et ester in 80% yield in the presence of [N-[2-(amino-κN)ethyl]-4-

methylbenzenesulfonamidato- κ N]chloro[(1,2,3,4,5,6- η)-1-methyl-4-(1-methylethyl)benzene]ruthenium as catalyst. Primary alcs. were more reactive than secondary alcs.

RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 58 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1998:805479 CAPLUS

DN 130:139438

TI The half-sandwich hydride and 16-electron complexes of rhodium and iridium containing (1S,2S)-N-(p-toluenesulfonyl)-1,2-diphenylethylenediamine: relevant to asymmetric transfer hydrogenation

AU Mashima, Kazushi; Abe, Tomoyuki; Tani, Kazuhide

CS Department of Chemistry, Graduate School of Engineering Science, Osaka University, Osaka, 560-8531, Japan

SO Chemistry Letters (1998), (12), 1201-1202

CODEN: CMLTAG; ISSN: 0366-7022

PB Chemical Society of Japan

DT Journal

LA English

AB The half-sandwich hydride and 16-electron complexes of Rh and Ir bearing an anion of (1S,2S)-N-(p-toluenesulfonyl)-1,2-diphenylethylenediamine were prepared. For the Ir catalyst system, a 16-electron complex 2b and an 18-electron, hydride complex 3b were synthesized, while only a 16-electron complex 2a was detected for the Rh catalyst.

RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 59 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1998:805478 CAPLUS

DN 130:125206

TI Asymmetric transfer hydrogenation of ketonic substrates catalyzed by (η^5 -C₅Me₅)MCl complexes (M = Rh and Ir) of (1S,2S)-N-(p-toluenesulfonyl)-1,2-diphenylethylenediamine

AU Mashima, Kazushi; Abe, Tomoyuki; Tani, Kazuhide

CS Department of Chemistry, Graduate School of Engineering Science, Osaka University, Osaka, 560-8531, Japan

SO Chemistry Letters (1998), (12), 1199-1200

CODEN: CMLTAG; ISSN: 0366-7022

PB Chemical Society of Japan

DT Journal

LA English

OS CASREACT 130:125206

AB The Rh and Ir [i.e., (η^5 -C₅Me₅)MCl, M = Rh, Ir] complexes of (1S,2S)-N-(p-toluenesulfonyl)-1,2-diphenylethylenediamine are catalyst precursors for asym. transfer hydrogenation of acetophenone, 2-acetonaphthone, 1-tetralone, and 1-indanone to give (S)-1-phenylethanol (90% ee), (S)-1-(2-naphthyl)ethanol (85% ee), (S)-1-tetralol (97% ee), and (S)-indanol (99% ee), resp.

RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 60 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1998:778865 CAPLUS

DN 130:104302

TI Structures, electrochemical and spectroscopic properties of ternary ruthenium(II)-polypyridyl complexes with additional carboxylate, biguanide or sulfonamide donors

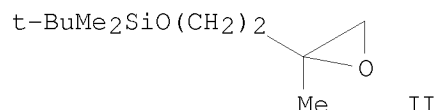
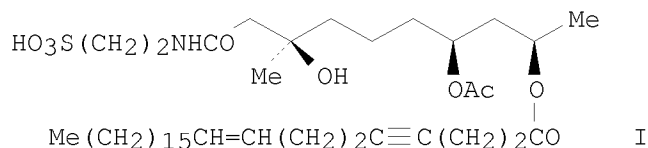
AU Couchman, Samantha M.; Dominguez-Vera, Jose M.; Jeffery, John C.; McKee, Colin A.; Nevitt, Simon; Pohlman, Matthias; White, Claire M.; Ward, Michael D.

CS School of Chemistry, University of Bristol, Bristol, BS8 1TS, UK

SO Polyhedron (1998), 17(20), 3541-3550
 CODEN: PLYHDE; ISSN: 0277-5387
 PB Elsevier Science Ltd.
 DT Journal
 LA English
 AB The following complexes were prepared: [Ru(bipy)2(pic)][PF6] (bipy = 2,2'-bipyridine; Hpic = picolinic acid); [Ru(terpy)(dipic)] (1, terpy = 2,2':6',2''-terpyridine; H2dipic = dipicolinic acid); [Ru(bipy)2(Hbig)][PF6]2 (2, Hbig = biguanide); and [Ru(bipy)2(apps)][PF6] (3, Happs = p-tolylsulfonamide of 2-(2-aminophenyl)-pyridine). The latter three were characterized by x-ray crystallog. and are all mononuclear pseudo-octahedral complexes. Crystal data: 1·H2O·Et2O, orthorhombic, space group Fddd, R1 = 0.0548; 2·MeCN, triclinic, space group P.hivin.1, R1 = 0.0342; 3·CH2Cl2, monoclinic, space group P21/c, R1 = 0.0407. Electrochem. studies reveal the relation between the potentials of the metal-based Ru(II)/Ru(III) couple, with the potential values being clearly related to the σ -donor or π -acceptor capabilities of the ligands. The energies of the lowest-energy MLCT maxima in the electronic spectra also correlate with ligand properties. [Ru(bipy)2(Hbig)][PF6]2, which has a dissociable proton on the biguanide ligand, undergoes deprotonation in strongly basic conditions ($pK_a = 12.3 \pm 0.2$), which results in a red shift of the MLCT transition consistent with weakening of the ligand field due to the increased π -donor capability of the deprotonated ligand.

RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 61 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1998:752622 CAPLUS
 DN 130:110074
 TI Enantioselective Total Synthesis of Taurospongins A
 AU Lebel, Helene; Jacobsen, Eric N.
 CS Department of Chemistry and Chemical Biology, Harvard University, Cambridge, MA, 02138, USA
 SO Journal of Organic Chemistry (1998), 63(26), 9624-9625
 CODEN: JOCEAH; ISSN: 0022-3263
 PB American Chemical Society
 DT Journal
 LA English
 OS CASREACT 130:110074
 GI



AB The first total synthesis of (Z)-taurospongins A (I), a fatty acid derivative from the sponge Hippospongia, via the use of highly effective asym. catalytic reactions to set each stereocenter independently was achieved. The preparation of (Z)-I in 6% overall yield was accomplished in 14 steps from

(±)-epoxide II including kinetic resolution

RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 62 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1998:586267 CAPLUS
DN 129:260221
TI Preparation of acetylene group-containing optically active alcohols from
acetylene group-containing carbonyl compounds
IN Ikariya, Takao; Matsumura, Kazuhiko; Hashiguchi, Shohei; Noyori, Ryoji
PA Foundation for Scientific Technology Promotion, Japan; Takeda Chemical
Industries, Ltd.; Takasago Perfumery Co., Ltd.; Nippon Kokan Co., Ltd.
SO Jpn. Kokai Tokkyo Koho, 15 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 10236986	A	19980908	JP 1997-38241	19970221 <--
	JP 3159661	B2	20010423		
PRAI	JP 1997-38241		19970221		
OS	CASREACT 129:260221; MARPAT 129:260221				
AB	The title alcs. are prepared by asym. hydrogenation of acetylene group-containing carbonyl compds. in the presence of (in)organic H donors and (i) tricomponent catalysts comprising transition metal complexes (TMC), bases, and N-containing optically active compds. (OAN), (ii) bicomponent catalysts comprising transition metal-OAN complexes and bases, or (iii) complexes formed from TMC, OAN, and bases. (1S,2S)-N-p-toluenesulfonyl-1,2- diphenylethylenediamine was treated with [RuCl ₂ (η ⁶ -mesitylene)] ₂ in 2-propanol (I) at 28° for 20 min, then treated with 4-phenyl-3-butyne-2-one, I, and KOH/I for 18 h to give 90% (S)-4-phenyl-3-butyne-2-ol with 97% ee.				

L5 ANSWER 63 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1998:330816 CAPLUS
DN 129:67518
TI Synthesis and evaluation of ruthenium catalysts containing diamine-based
ligands in olefin cyclopropanation
AU Simal, Francois; Demonceau, Albert; Noels, Alfred F.
CS Laboratory of Macromolecular Chemistry and Organic Catalysis, C.E.R.M.,
University of Liege, Liege, B-4000, Belg.
SO Tetrahedron Letters (1998), 39(21), 3493-3496
CODEN: TELEAY; ISSN: 0040-4039
PB Elsevier Science Ltd.
DT Journal
LA English
OS CASREACT 129:67518
AB Ruthenium complexes with N-(p-toluenesulfonyl) diamine ligands were found
to be efficient in the catalytic cyclopropanation reaction of olefins with
alkyl diazoacetates.

RE.CNT 64 THERE ARE 64 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 64 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1997:603412 CAPLUS
DN 127:247708
TI Asymmetric Transfer Hydrogenation of α,β -Acetylenic Ketones
AU Matsumura, Kazuhiko; Hashiguchi, Shohei; Ikariya, Takao; Noyori, Ryoji
CS ERATO Molecular Catalysis Project, Japan Science and Technology
Corporation, Toyota, 470-03, Japan

SO Journal of the American Chemical Society (1997), 119(37),
8738-8739
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English
OS CASREACT 127:247708
AB A range of achiral α,β -acetylenic ketones is converted to
propargylic alcs. with high enantiomeric excess and in high yield by
transfer hydrogenation using 2-propanol as the hydrogen donor. The asym.
reaction using arene-Ru(II) catalysts modified with (R,R)- or
(S,S)-N-p-toluenesulfonyl-1,2-diphenylethylenediamine proceeds with a
substrate/catalyst molar ratio of 100-1000 under neutral conditions and at
room temperature, allowing chemo- and enantioselective saturation of the
carbonyl
function while leaving the acetylenic linkage intact. β -Amino alcs.
such as (1S,2S)-2-(methylamino)-1,2-diphenylethanol are also usable as
chiral auxiliaries. The enantiomeric purity of the propargylic alcs. is
consistently high regardless of the bulkiness of substituents. Reduction of
chiral alkynyl Cbz-aminoalkyl ketones gives the enantiomerically pure
alcs. with contiguous stereogenic carbons, where the carbonyl faces are
differentiated by the chirality of the Ru catalyst.
RE.CNT 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 65 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1997:467761 CAPLUS
DN 127:94864
TI Process for preparing optically active alcohols and amines
IN Ikariya, Takao; Hashiguchi, Shohei; Takehara, Jun; Uematsu, Nobuyuki;
Matsumura, Kazuhiko; Noyori, Ryoji; Fujii, Akio; et al.
PA Japan Science and Technology Corporation, Japan; NKK Corporation; Takeda
Chemical Industries, Ltd.; Asahi Kasei Kogyo Kabushiki Kaisha; Takasago
International Corporation
SO PCT Int. Appl., 90 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

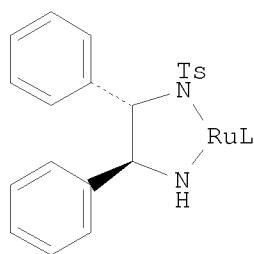
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9720789	A1	19970612	WO 1996-JP3573	19961206 <--
	W: CA, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	JP 09157196	A	19970617	JP 1995-318303	19951206 <--
	JP 2962668	B2	19991012		
	JP 09157228	A	19970617	JP 1995-318304	19951206 <--
	JP 2912572	B2	19990628		
	JP 10130289	A	19980519	JP 1996-284233	19961025 <--
	JP 3040353	B2	20000515		
	CA 2239970	A1	19970612	CA 1996-2239970	19961206 <--
	CA 2239970	C	20060221		
	EP 916637	A1	19990519	EP 1996-941186	19961206 <--
	EP 916637	B1	20050420		
	R: DE, FR, GB				
	EP 1300381	A1	20030409	EP 2002-25508	19961206
	EP 1300381	B1	20060308		
	R: DE, FR, GB				
	US 6184381	B1	20010206	US 1998-77787	19980929 <--
	US 6887820	B1	20050503	US 2000-661560	20000914
PRAI	JP 1995-318303	A	19951206		
	JP 1995-318304	A	19951206		

JP 1996-284233 A 19961025
 EP 1996-941186 A3 19961206
 WO 1996-JP3573 W 19961206
 US 1998-77787 A3 19980929

OS CASREACT 127:94864; MARPAT 127:94864

AB This document describes a novel and practically excellent process for preparing optically active compds., such as optically active alcs. or amines R₁R₂CHW [R₁, R₂ = (un)substituted hydrocarbon moiety, etc.; W = OH, NH₂, etc.] , useful for various applications, for example, as synthetic intermediates of pharmaceuticals, liquid crystalline materials, and reagents for optical resolution, wherein a hydrogen transfer type asym. reduction is carried out in the presence of both a transition metal complex and an optically active nitrogen compound or a transition metal complex having an optically active nitrogen compound as an asym. ligand, and a hydrogen-donating organic or inorg. compound Further, optically active secondary alcs. are prepared from racemic secondary alcs. or meso-diols by a hydrogen transfer oxidation Asym. reduction of acetophenone by the title process gave (S)-1-phenylethanol in 98% ee.

L5 ANSWER 66 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1997:142099 CAPLUS
 DN 126:263647
 TI Kinetic resolution of racemic secondary alcohols by RuII-catalyzed hydrogen transfer
 AU Hashiguchi, Shohei; Fujii, Akio; Haack, Karl-Josef; Matsumura, Kazuhiko; Ikariya, Takao; Noyori, Ryoji
 CS ERATO Molecular Catalysis Project, Res. Development Corporation Japan, Toyota, 470-03, Japan
 SO Angewandte Chemie, International Edition in English (1997), 36(3), 288-290
 CODEN: ACIEAY; ISSN: 0570-0833
 PB VCH
 DT Journal
 LA English
 OS CASREACT 126:263647
 GI



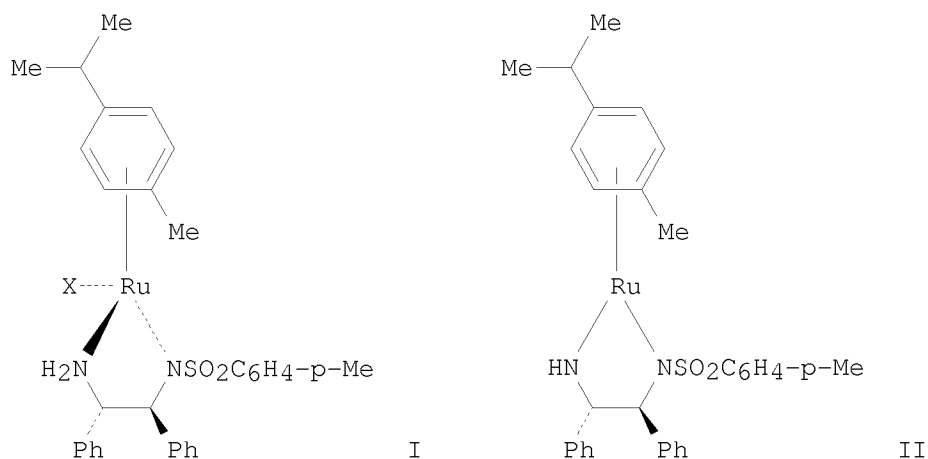
I

AB Chiral Ru(II) complexes (S,S)-I (L = p-cymene, mesitylene) catalyzed the kinetic resolution of racemic secondary alcs. [e.g., p-RC₆H₄CHMeOH (R = H, MeO, Me₂N), PhCH:CHCHMeOH, 1-(hydroxyethyl)ferrocene, 1-tetralol, 1-indanol, etc.] by transfer hydrogenation in Me₂CO. The S enantiomer was converted to the corresponding ketone, leaving the unreacted R enantiomer in 92-99% e.e. at .apprx.50% conversion.

RE.CNT 67 THERE ARE 67 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 67 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1997:142095 CAPLUS

DN 126:238462
 TI The catalyst precursor, catalyst and intermediate in the RuII-promoted
 asymmetric hydrogen transfer between alcohols and ketones
 AU Haack, Karl-Josef; Hashiguchi, Shohei; Fujii, Akio; Ikariya, Takao;
 Noyori, Ryoji
 CS ERATO Molecular Catalysis Project, Res. Development Corporation Japan,
 Toyota, 470-03, Japan
 SO Angewandte Chemie, International Edition in English (1997),
 36(3), 285-288
 CODEN: ACIEAY; ISSN: 0570-0833
 PB VCH
 DT Journal
 LA English
 OS CASREACT 126:238462
 GI



AB The complexes I (X = Cl, H) and II were prepared, characterized by x-ray
 crystallog., and studied with respect to asym. hydrogen transfer between
 alcs. and ketones. I (X = Cl), which catalyzes the asym. transfer
 hydrogenation of acetophenone in 2-propanol containing KOH, is merely a
 catalyst precursor that undergoes HCl elimination to give the true
 catalyst II. II shows distinct dehydrogenative activity for MeOH, EtOH,
 and 2-propanol and catalyzes the asym. reduction of acetophenone in 2-propanol
 without KOH to afford (S)-1-phenylethanol in up to 95% ee. I (X = H) is
 an intermediate in the H transfer reaction.

RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 68 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1996:268475 CAPLUS
 DN 125:58824
 TI Asymmetric Transfer Hydrogenation of Imines
 AU Uematsu, Nobuyuki; Fujii, Akio; Hashiguchi, Shohei; Ikariya, Takao;
 Noyori, Ryoji
 CS ERATO Molecular Catalysis Project, Research Development Corporation of
 Japan, Toyota, 470-03, Japan
 SO Journal of the American Chemical Society (1996), 118(20),
 4916-17
 CODEN: JACSAT; ISSN: 0002-7863
 PB American Chemical Society

DT Journal
 LA English
 OS CASREACT 125:58824
 AB Ruthenium(II) complexes, e.g. (R)-RuCl[(1S,2S)-p-TsNCH(C₆H₅)CH(C₆H₅)NH₂](η 6-p-cymene), which were modified by arene ligands and chiral N-arenesulfonylated 1,2-diamine auxiliaries, catalyzed the asym. reduction of prochiral imines with a formic acid-triethylamine mixture to give secondary amines with a high enantiomeric purity. The reaction was conducted in an aprotic dipolar solvent at 28° with a substrate/catalyst molar ratio of 100-1000. This method saturated C:N bonds preferentially over C:O and C:C linkages. A variety of cyclic imines and some acyclic imines can be used as substrates. This asym. catalysis provides a new way to isoquinoline and indole alkaloids.

L5 ANSWER 69 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1996:121491 CAPLUS
 DN 124:260042
 TI Ruthenium(II)-Catalyzed Asymmetric Transfer Hydrogenation of Ketones Using a Formic Acid-Triethylamine Mixture
 AU Fujii, Akio; Hashiguchi, Shohei; Uematsu, Nobuyuki; Ikariya, Takao; Noyori, Ryoji
 CS Molecular Catalysis Project, Research Development Corporation of Japan, Toyota, 470-03, Japan
 SO Journal of the American Chemical Society (1996), 118(10), 2521-2
 CODEN: JACSAT; ISSN: 0002-7863
 PB American Chemical Society
 DT Journal
 LA English
 OS CASREACT 124:260042
 AB (R)-RuCl[(1S,2S)-p-CH₃C₆H₄SO₂NCHPhCHPhNH₂](η 6-mesitylene) or the enantiomer efficiently catalyzes asym. reduction of prochiral ketones in a 5:2 formic acid-NEt₃ azeotropic mixture with a substrate:catalyst molar ratio of 200-1000 to give the corresponding secondary alcs. with a high enantiomeric purity. This transfer hydrogenation can be characterized by irreversibility, which contrasts with the conventional reaction that uses iso-PrOH as a H donor. The reaction proceeds with truly kinetic enantioface discrimination to completion with a substrate concentration \leq 2-10 M. A variety of aromatic ketones including p-methoxyacetophenone and 2,3-benzo-2-cycloalkenones are usable as substrates. The reduction occurs preferentially at a keto function without affecting an olefinic linkage, ester, furan ring, sulfide and sulfone group, aryl chloride and cyanide, thiophene and quinoline ring. The utility was demonstrated by enantioselective synthesis of some chiral alcs. which serve as key intermediates for biol. significant compds.

L5 ANSWER 70 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1995:701698 CAPLUS
 DN 123:199119
 TI Formation and Structure of Coordinatively Unsaturated CpIr-Amino Acid Complexes. Kinetic and Thermodynamic Control in Highly Diastereoselective Complexation Reactions
 AU Grotjahn, D. B.; Groy, T. L.
 CS Department of Chemistry and Biochemistry, Arizona State University, Tempe, AZ, 85287-1604, USA
 SO Organometallics (1995), 14(8), 3669-82
 CODEN: ORGND7; ISSN: 0276-7333
 PB American Chemical Society
 DT Journal
 LA English
 OS CASREACT 123:199119
 AB Amino acid derivs. bearing an electron-withdrawing group Z on N (Z =

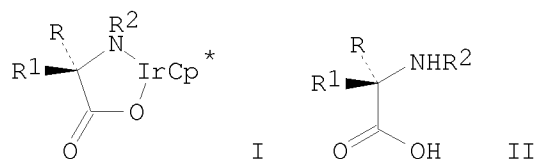
tosyl, CO₂CH₂Ph, or acetyl) serve as (N,O)-chelating, dianionic ligands to the fragment Cp*Ir (Cp* = η^5 -pentamethylcyclopentadienyl). Six such complexes have been prepared, all of them coordinatively unsatd. yet air-stable. The structure of the N-tosylglycine derivative C₁₉H₂₄IrNO₄S (5a) was analyzed at 20°. A planar chelate ring was revealed, and relatively short Ir-N and Ir-O bonds suggested stabilization of unsatd. Ir by π -donation. Crystals of the (R)-N-tosylphenylglycine complex C₂₅H₂₈IrNO₄S (5f) were monoclinic. Some distortion of the chelate ring was seen, and both aryl rings were syn, the angle between their mean planes being 19°. Within seconds, red solns. of the unsatd. complexes turn yellow on addition of ligands such as phosphines, CO, and primary aliphatic or heterocyclic amines. Ligands add to chiral complexes so as to place the amino acid side chain R and Cp* cis to each other on the metallacycle, suggesting preferred approach of the ligand to 5 from the side opposite R. For one PMe₃ adduct this was the result of kinetic control ($\geq 50:1$ selectivity at 25°) and thermodyn. control (40:1 selectivity after equilibration at 90°, half-life = 5 h). PPh₃ and amines exchange within minutes at 25°. The stereoselectivity of ligand addition was highest for smaller ligands. Comparing this result and previous work suggests that steric interactions between added ligand and the amino acid side chain R determine diastereoselectivity.

L5 ANSWER 71 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1995:683286 CAPLUS
 DN 123:169085
 TI Asymmetric Transfer Hydrogenation of Aromatic Ketones Catalyzed by Chiral Ruthenium(II) Complexes
 AU Hashiguchi, Shohei; Fujii, Akio; Takehara, Jun; Ikariya, Takao; Noyori, Ryoji
 CS ERATO Molecular Catalysis Project, Research Development Corporation of Japan, Toyota, 470-03, Japan
 SO Journal of the American Chemical Society (1995), 117(28), 7562-3
 CODEN: JACSAT; ISSN: 0002-7863
 PB American Chemical Society
 DT Journal
 LA English
 OS CASREACT 123:169085
 AB A chiral Ru(II) complex, prepared from [RuCl₂(η^6 -mesitylene)]₂ and (1S,2S)-N-p-toluenesulfonyl-1,2-diphenylethylenediamine, effects a highly enantioselective transfer hydrogenation of various aromatic alkyl ketones by iso-PrOH. The reduction of acetophenone in a 0.1M solution of iso-PrOH containing the Ru catalyst (substrate/catalyst (S/C) mole ratio = 200) and KOH (5 equiv to Ru atom) proceeds at room temperature to give (S)-1-phenylethanol in 97% ee and 95% yield. The enantioselectivity is slightly lowered as the reaction proceeds owing to the reversibility of the transfer hydrogenation. In a similar manner, a range of simple aromatic ketones (S/C = 200-500) are convertible to secondary alcs. with high enantiomeric purity. A relevant catalyst precursor was obtained by reacting [RuCl₂(η^6 -benzene)]₂ and (1S,2S)-N-trifluoromethanesulfonyl-1,2-diphenylethylenediamine in a 1:4 mol ratio in iso-PrOH. The mol. structure was determined by single-crystal x-ray anal.

L5 ANSWER 72 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1995:504081 CAPLUS
 DN 123:159805
 TI Coordination of chiral amines to coordinatively unsaturated Cp*-Ir-amino acid complexes allows determination of enantiomeric purity
 AU Grothjan, Douglas B.; Joubran, Camil
 CS Department of Chemistry and Biochemistry, Arizona State University, Tempe, AZ, 85287-1604, USA

SO Tetrahedron: Asymmetry (1995), 6(3), 745-52
 CODEN: TASYE3; ISSN: 0957-4166
 PB Elsevier
 DT Journal
 LA English
 AB Coordinatively unsatd. complexes of the Cp*Ir fragment to the dianion of N-tosylamino acids combine with chiral amines in a highly diastereoselective fashion, such that metallacycle substituents R (amino acid side chain) and Cp* are cis. Observation of adducts between the alanine- and phenylglycine-derived complexes and (S)- α -methylbenzylamine by NMR at low to ambient temperature allows determination of the enantiomeric purity of either component, 1 to 2% impurity being easily detectable. Also, α -methylbenzylamine was analyzed for its enantiomeric purity independent of external chiral reagent, by its conversion to N,N'-bis(1-phenylethyl)urea.

L5 ANSWER 73 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1994:580143 CAPLUS
 DN 121:180143
 TI Formation of Coordinatively Unsaturated Cp*Ir-Amino Acid Complexes and Their Highly Diastereoselective Complexation Reactions
 AU Grotjahn, D. B.; Groy, T. L.
 CS Department of Chemistry and Biochemistry, Arizona State University, Tempe, AZ, 85287-1604, USA
 SO Journal of the American Chemical Society (1994), 116(15), 6969-70
 CODEN: JACSAT; ISSN: 0002-7863
 DT Journal
 LA English
 OS CASREACT 121:180143
 GI



AB The title complexes I (e.g., R = H, R1 = H, Ph; R2 = tosyl; Cp* = pentamethylcyclopentadienyl) were prepd by treating II with [Cp*IrCl(μ -Cl)]₂. The ligand addition reactions of chiral I proceed with high stereoselectivity.

L5 ANSWER 74 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1989:608691 CAPLUS
 DN 111:208691
 TI Synthesis and biological evaluation of new rhodium(I) complexes with sulfonamide derivatives
 AU Craciunescu, George; Scarcia, Vito; Furlani, Ariella; Parrondo Iglesias, Esther; Ghirvu, Costantin; Papaioannou, Aristotelis
 CS Fac. Pharm., Univ. Madrid, Madrid, 28040, Spain
 SO Anticancer Research (1989), 9(3), 781-5
 CODEN: ANTRD4; ISSN: 0250-7005
 DT Journal
 LA English
 AB New rhodium(I) complexes, belonging to the general structure [Rh(CO)₂(L)], where L were sulfonamide derivs., were synthesized and characterized by

chemical anal. and IR detns. These complexes were assayed as cytostatic and antitumor agents in vitro against KB cells and in vivo against P388, Ehrlich ascites, and advanced B16 melanoma. Assays against 3 Trypanosoma strains were also performed. Among the new compds., the [Rh(CO)₂(sulfamethoxydiazine)] appeared to be active in all biol. systems without showing evident nephrotoxicity. Relationships between biol. activity and π electronic charge localization on N atom of the ligand amidic group are also discussed.

L5 ANSWER 75 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1985:463844 CAPLUS

DN 103:63844

OREF 103:10133a,10136a

TI Rhodium(III), palladium(II) and platinum(II) complexes of bis(o-aminobenzenesulfonyl)ethylenediamine

AU Perlepes, Spyros P.; Tsangaris, John M.

CS Chem. Dep., Univ. Ioannina, Ioannina, Greece

SO Monatshefte fuer Chemie (1985), 116(5), 603-6

CODEN: MOCMB7; ISSN: 0026-9247

DT Journal

LA English

AB K₃[RhL₃].2H₂O, [PdL].H₂O and [M(LH₂)Cl₂] [M = Pd, Pt; LH₂ = bis(o-aminobenzenesulfonyl)ethylenediamine] were prepared and characterized by conductivity measurements, thermogravimetric anal., x-ray powder patterns and IR, ligand field and ¹H-NMR spectroscopy.

L5 ANSWER 76 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1975:443482 CAPLUS

DN 83:43482

OREF 83:6891a,6894a

TI Isocyanate, urea, and amide complexes from the reactions of organic azides with low oxidation state complexes of transition metals

AU Cenini, S.; Pizzotti, M.; Porta, F.; La Monica, G.

CS Ist. Chim. Gen., Cons. Naz. Ric. Cent., Milan, Italy

SO Journal of Organometallic Chemistry (1975), 88(2), 237-48

CODEN: JORCAI; ISSN: 0022-328X

DT Journal

LA English

AB The reactions of organic azides RN₃ (R = p-MeC₆H₄SO₂, p-MeC₆H₄CO, Bz, 2-carbonylfuran) with Ru(CO)₃(PPh₃)₂ in benzene gave isocyanate, Ru(CO)₂(PPh₃)₂(RNCO), urea, Ru(CO)₂(PPh₃)₂(RNCONR) or amides, Ru(CO)₂(PPh₃)₂(NHR)₂, depending on the reaction conditions and on the nature of R. The urea complex (R = p-MeC₆H₄SO₂) was also obtained by the oxidative addition of N,N'-ditoluene-p-sulfonylurea or toluene-p-sulfonyl isocyanate to Ru(CO)₃(PPh₃)₂. The isocyanate derivative with R = Bz was protonated by fluoboric acid to give the corresponding carbamoyl complex, [Ru(CO)₂(PPh₃)₂(CONHR)]⁺BF₄⁻ which on treatment with LiCl gave the non-ionic derivative [Ru(CO)(PPh₃)₂(CONHR)Cl]_n. Analogous reactions were studied with the complexes Ru₃(CO)₉L₃ (L = CO, PPh₃), but the only characterizable product was the monomeric Ru(CO)₂L₂(RNCONR) (L = PPh₃, R = p-MeC₆H₄SO₂). Attempted cycloaddn. reactions in benzene of the azides to coordinated ligands L other than carbon monoxide, such as CS₂, PhNCS, alkenes, in the complexes Pt(PPh₃)₂L or SO₂ in Pt(PPh₃)₃SO₂ were unsuccessful. Only in protic solvents was a clean reaction observed (L = CH₂:CHCN), giving the known complex Pt(PPh₃)₂(N₃)(NHR) (R = p-MeC₆H₄SO₂). Similarly, the complexes Pd(L-L)(dba) (L-L = 2,2'-bipyridyl, o-phenanthroline, dba = dibenzylideneacetone), on treatment with RN₃ in EtOH gave the new amides Pd(L-L)(X)(NHR), (X = NHR, R = p-MeC₆H₄SO₂; X = N₃, R = p-MeC₆H₄CO).

L5 ANSWER 77 OF 77 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1974:127652 CAPLUS
 DN 80:127652
 OREF 80:20515a,20518a
 TI Reactions of toluene-p-sulfonyl azide and isocyanate with low valent transition-metal complexes
 AU Beck, Wolfgang; Rieber, Wolfram; Cenini, Sergio; Porta, Francesca; La Monica, Girolamo
 CS Inst. Anorg. Chem., Univ. Muenchen, Munich, Fed. Rep. Ger.
 SO Journal of the Chemical Society, Dalton Transactions: Inorganic Chemistry (1972-1999) (1974), (3), 298-304
 CODEN: JCDTBI; ISSN: 0300-9246
 DT Journal
 LA English
 AB Pd(CO)(PPh₃)₃ and M(CO)(NO)(PPh₃)₂ (M = Rh, Ir) reacted with RN₃ (R = p-MeC₆H₄SO₂) in C₆H₆ to give chelate complexes Pd(PPh₃)₂(RNCONR) and M(NO)(PPh₃)₂(RNCONR), resp. Pt(PPh₃)₂(RNCONR) was prepared by oxidative addition of RHNCONHR to Pt(PPh₃)₄, but reaction of Pt(PPh₃)_n(CO)_{4-n} (n = 2, 3) with RN₃ gave Pt(PPh₃)₂(R₂N₄CO). The urea complexes were also prepared by treatment of M(PPh₃)₄ (M = Pd, Pt) or M(NO)(PPh₃)₃ (M = Rh, Ir) with RNCO. RhCl(PPh₃)₂(RNCONR) was isolated from the reactions of Rh(PPh₃)₃Cl with RNCO or RHNCONHR. In protic solvents such as R₁OH (R₁ = Me, Et, Pr), reaction of RN₃ with Pt(PPh₃)_n(CO)_{4-n} (n = 2, 3) gave trans-Pt(PPh₃)₂(CO₂R₁)₂ for n = 2 and Pt(PPh₃)₂N₃(NRCO₂R₁) for n = 3. Reaction of RhH[Ph₂P(CH₂)₂PPh₂]₂ with RN₃ gave a dimeric complex, probably with a diimide bridge.

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---Logging off of STN---

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Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	227.63	406.20
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	ENTRY	SESSION
CA SUBSCRIBER PRICE	-61.60	-61.60

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